Daily phytoplankton productivity experiments and nutrient measurements in Bedford Basin, Nova Scotia, from 18 May to 26 July 1975

B. Côté and T. Platt

Marine Ecology Laboratory
Ocean Science and Surveys, Atlantic
Department of Fisheries and Oceans

Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, N.S. B2Y 4A2

January 1984

Canadian Data Report of Fisheries and Aquatic Sciences No. 425

85-5191/

Canadian Data Report of Fisheries and Aquatic Sciences

These reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of Data Reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries management, technology and development, ocean sciences, and aquatic environments relevant to Canada.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was changed with report number 161.

Data Reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The correct citation appears above the abstract of each report.

Rapport statistique canadien des sciences halieutiques et aquatiques

Ces rapports servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des Rapports statistiques reflètent la vaste gamme des intérêts et politiques du Ministère des Pêches et des Océans, notamment gestion des pêches, techniques et développement, sciences océaniques et environnements aquatiques, au Canada.

Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Les Rapports statistiques ne sont pas préparés pour une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au haut du résumé de chaque rapport.

Canadian Data Report

Fisheries and Aquatic Sciences No. 425

DAILY PHYTOPLANKTON PRODUCTIVITY EXPERIMENTS AND NUTRIENT MEASUREMENTS IN BEDFORD BASIN, NOVA SCOTIA, FROM 18 MAY TO 26 JULY 1975

by

B. CÔTÉ AND T. PLATT

Marine Ecology Laboratory
Ocean Sciences and Surveys, Atlantic
Department of Fisheries and Oceans

Bedford Institute of Oceanography
Dartmouth, Nova Scotia
B2Y 4A2

This is the twenty-second data Report from the Marine Ecology Laboratory, Dartmouth.

©Ministry of Supply and Services Canada 1984
Cat. No. Fs 97-13/425 ISSN 0706-6465

Correct citation for this publication:

Côté., B. and T. Platt. 1984. Daily phytoplankton productivity experiments and nutrient measurements in Bedford Basin, Nova Scotia, from 18 May to 26 July 1975. Can. Data Rept. Fish. Aquat. Sci. No. 425: 116 p.

TABLE OF CONTENTS

ABSTRACT/RÉSUMÉ ---------- v

INTRODUCTION ---------- 1

SAMPLING ---------- 1

METHODS ---------- 1

PRODUCTIVITY ---------- 1

CHLOROPHYLL *a* ---------- 2

PARTICULATE CARBON AND NITROGEN ---------- 2

ATP ---------- 2

PARTICLE-SIZE DISTRIBUTION ---------- 2

SPECIES COMPOSITION ---------- 3

LIGHT INTENSITY ---------- 3

NUTRIENTS ---------- 3

SALINITY ---------- 3

WIND SPEED AND DIRECTION ---------- 4

RIVER DISCHARGE ---------- 4

LIGHT-SATURATION PARAMETERS ---------- 4

REFERENCES ---------- 4

LIGHT-SATURATION EXPERIMENTS AND *IN SITU* PRIMARY PRODUCTION MEASUREMENTS ---------- 7

BIOMASS INDICES ---------- 78

BIOLOGICAL CHARACTERISTICS ---------- 83

SPECIES COMPOSITION ---------- 88

PHYSICAL CHARACTERISTICS ---------- 91

CHEMICAL CHARACTERISTICS, TIDAL HEIGHT AND RATE OF DISCHARGE OF SACKVILLE RIVER ---------- 96

BATHYTHERMOGRAPH RESULTS ---------- 101

HOURLY SOLAR RADIATION READINGS, HALIFAX CITADEL ---------- 113

ABSTRACT

Côté, B. and T. Platt. 1984. Daily phytoplankton productivity experiments and nutrient measurements in Bedford Basin, Nova Scotia, from 18 May to 26 July 1975. Can. Data Rept. Fish. Aquat. Sci. No. 425: 116 p.

Primary production incubation experiments and related nutrient determinations were made daily from Bedford Basin (63°38'30" W, 44°41'30" N) over the period 18 May to 26 July 1975. In this report we make available the raw data and the fitted light saturation parameters with confidence limits.

RÉSUMÉ

Côté, B. and T. Platt. 1984. Daily phytoplankton productivity experiments and nutrient measurements in Bedford Basin, Nova Scotia, from 18 May to 26 July 1975. Can. Data Rept. Fish. Aquat. Sci. No. 425: 116 p.

Durant la période du 18 mai au 26 juillet 1975, des expériences quotidiennes pour déterminer la production primaire et la concentration des sels nutritifs furent réalisées au Bassin de Bedford (63°38'30" W, 44°41'30" N). Dans ce rapport nous présentons les données brutes de ces expériences, ainsi que les valeurs des paramètres (α^B, $P_m{}^B$, R^B) avec intervalles de confiance, associés aux courbes de production en fonction de la lumière.

INTRODUCTION

This is the latest in a series of data reports giving results of experiments on phytosynthetic production versus light intensity for natural phytoplankton populations of Nova Scotia coastal waters (Irwin *et al.* 1975; Irwin & Platt 1978). The present study examines the day-to-day variability in coastal phytoplankton as seen through comparisons of biomass and production measured every day at the same fixed station in the Bedford Basin for a period of 70 days.

Bedford Basin is a small enriched marine inlet 70 m deep with a surface area of 17 km^2. It is separated from the sea by Halifax Harbour, 10 km long and 400 m wide at the narrowest part. This channel, only 20 m deep, constitutes a sill. The waters in the basin above the sill depth exchange continuously with the open sea by a variety of mechanisms driven by tides, winds, and fresh water runoff (Platt *et al.* 1972; Platt and Conover 1971).

The purpose of this report is to present in full the results of measurements of phytoplankton productivity, biomass, nutrients and hydrography made daily during the spring-summer period in Bedford Basin (63°38'30" W, 44°41'30" N). Interpretation and discussion of the results will be the subject of future publications.

SAMPLING

Water samples were collected with a 30-liter Niskin sampler on 70 consecutive days from 18 May to 26 July 1975 from a depth of 5 m. The sampling station was located in the southwest corner of Bedford Basin (Fig. 1). The water was filtered through 153-µm mesh netting to remove large herbivores, and transported to a field laboratory on a barge near the sampling station. A vertical profile of temperature was recorded with a bathythermograph.

METHODS

PRODUCTIVITY

Primary production was measured by both the *in situ* and incubation (light-saturation curve) method. The ^{14}C method as given in Strickland and Parsons (1972) was used.

Light-saturation experiments were done in triplicate each day. A total of thirty light and three dark bottles were innoculated with 1 ml of sodium bicarbonate ^{14}C solution having an approximate activity of 5 µci. The exact activity of the solution was determined by counting a 10 µl aliquot in a scintillation counter. The innoculated bottles were placed

in temperature controlled incubators and illuminated for 3 hours by a 150 Watt flood light (GTE Sylvania PAR 150).

At the end of the 3 hours incubation, the samples were filtered immediately onto 2.5 cm diameter, 0.45 u pore size, membrane filters. The filters were dried in a dessicator, exposed to HCL fumes for 10 minutes and counted in a scintillation counter.

Total radiation in each compartment of the incubators was measured using an Eppley 40 junction pyranometer. Light quality was measured with an ISCO Spectroradiometer.

For the *in situ* primary production measurement, five light bottles and one dark bottle were attached with a special frame to a weighted nylon line and suspended over the side of the barge at 5 m depth. The samples were incubated for 3 hours from approximately 1000 h to 1300 h local time. The amount of light available under water during the ^{14}C *in situ* experiments was measured with a submersible integrating radiometer (Platt *et al.* 1970)

CHLOROPHYLL *a*

Six replicate 1 ℓ samples were filtered onto glass fibre filters. The fluorometric method of Yentsch and Menzel (1963) as modified by Holm-Hansen *et al.* (1965) was used.

PARTICULATE CARBON AND NITROGEN

Six replicate 1 ℓ samples were filtered onto previously baked silver filters (0.8 u pore size). The filters were then combusted in a Hewlett-Packard model 185 B CHN analyser.

ATP

Six replicate 100 ml samples were filtered on GF/C glass fibre filters for ATP determination. The filters were plunged for 5 to 10 minutes in a Vacutainer^{R} tube containing 3 ml of boiling Tris buffer, then frozen. ATP content was measured by the method of Holm-Hansen and Booth (1966).

PARTICLE SIZE DISTRIBUTION

An aliquot of raw seawater was counted for cell numbers and total cell volume using a model T Coulter counter. 100-, 280- and 400- µm tubes were used. Mean cell volume was calculated in the 4 - 128- µm size range. The diversity index of the nanoplankton size fraction (4-16 µm) and the

microplankton fraction(20-128 um) was determined for each spectra using the Shannon-Weaver expression:

$$\text{Diversity} = \Sigma\, p_i \ln p_i$$

where p_i is the amount of particulate material in a given size category expressed as a function of the total volume of either nanoplankton or microplankton (Parsons 1969).

SPECIES COMPOSITION

Cell counts were made on sedimented samples preserved in Lugol's solution using the inverted microscope technique.

LIGHT INTENSITY

Hourly sunlight readings were taken from the official records collected at Citadel Hill, Halifax, 3.5 km from the sampling station. Daily internal light levels were estimated by summing the hourly sunlight readings over the 24-h period preceding the time of collection of the sample and multiplying ty the extinction coefficient. Hourly sunlight readings were first multiplied by 0.5 to give the fraction in the photosynthetically active band (380-725 nm) and further reduced by 10% to allow for losses at the sea surface (Strickland 1958). The extinction coefficient, k, was calculated from the expresssion $k = -1/z \ln (I_z / I_0)$, where I_z and I_0 refer to surface and subsurface light levels (integrated over the 3-h incubation period) and z refers to sampling depth.

NUTRIENTS

Five inorganic nutrient concentrations were routinely measured for each sample. They were nitrate, nitrite, ammonia, phosphate and silicate and were estimated using the following colorometric techniques.

1) Nitrate - the sum of nitrate plus nitrite by reducing the nitrate to nitrite using the cadmium amalgam method described in Strickland and Parsons (1972).
2) Nitrite - the method as described in Strickland and Parsons (1972).
3) Ammonia - the phenolhypochlorite method as described by Solorzano (1969).
4) Phosphate - the method as described by Murphy and Riley (1962).
5) Silicate - the method as described by Mullin and Riley (1955).

SALINITY

Salinity was measured by the conductivity method with an autolab 601 inductively coupled salinometer.

WIND SPEED AND DIRECTION

Wind data, collected at Shearwater, 15 km from the sampling station, were obtained from the Atmospheric Environment Branch of Environment Canada.

RIVER DISCHARGE

The rate of discharge of the Sackville River was provided by the Marine Environment Data Service Branch of Environment Canada.

LIGHT SATURATION PARAMETERS

Production rates were normalized to chlorophyll *a* and plotted as a function of light intensity (I) to give the light saturation curve. The hyperbolic tangent equation

$$P^B = P_m^B \tanh(\alpha^B I / P_m^B) - R^B$$

was fitted to the data by the two-step fitting procedure of Jassky and Platt (1976). In this equation α^B is the initial slope of the curve ($mgC \cdot mg\ Chl\ a^{-1} \cdot h^{-1} \cdot W^{-1} \cdot m^2$) and P_m^B the specific productivity at saturating light ($mg\ C \cdot mg\ Chl\ a^{-1} \cdot h^{-1}$). The term R^B($mg\ C \cdot mg\ Chl\ a^{-1} \cdot h^{-1}$) is the intercept at zero irradiance, commonly considered a measure of dark respiration. Data from the triplicate light saturation experiments were pooled to construct a single light-saturation curve, giving one set of parameter estimates for α^B, P_m^B, and R^B on each sampling day.

REFERENCES

Holm-Hansen, O., and C.R. Booth. 1966. The measurement of adenosine triphosphate in the ocean and its ecological significance. Limnol. Oceanogr. 11 : 510-519.

Holm-Hansen, O., C.J. Lorenzen, R.W. Holmes and J.D. Strickland. 1965. Fluorometric determination of chlorophyll. J. Cons. Cons. Int. Explor. Mer 30 : 3-15.

Irwin, B. and T. Platt. 1978. Phytoplankton productivity experiments and nutrient measurements in Bedford Basin, Nova Scotia, from September 1975 to December 1976. Fish. Mar. Serv. Tech. Rept. 762. 128 p.

Irwin, B., T. Platt, A.D. Jassby and D.V. Subba Rao. 1975. The relationship between light intensity and photosynthesis by phytoplankton. Results of experiments at three stations in the coastal waters of Nova Scotia. Fish. Mar. Serv. Tech. Rep. 595. 205 p.

Jassby, A. and T. Platt. 1976. Mathematical formulation of the relationship between photosynthesis and light for phytoplankton. Limnol. Oceanogr. 21 : 540-547.

Mullin, T.B. and J.P. Riley. 1955. The colorimetric determination of silicate with special reference to sea and natural waters. Anal. Chim. Acta. 12 : 162-176.

Murphy, J. and J.P. Riley. 1962. A modified single solution method for determination of phosphate in natural waters. Anal. Chem. Acta. 27 : 31-36.

Parsons, T.R. 1969. The use of particle size spectra in determining the structure of a phytoplankton community. J. Oceanogr. Soc. Jap. 25 : 172-181.

Platt, T. and R.J. Conover. 1971. Variability and its effect on the 24 h chlorophyll budget of a small marine basin. Mar. Biol. 10 : 52-65.

Platt, T., E. Larsen and R. Vine. 1970. Integrating radiometer: A self-contained device for measurement of submarine light energy in absolute units. J. Fish. Res. Bd. Can. 27 : 181-191.

Platt, T., A. Prakash and B. Irwin. 1972. Phytoplankton nutrients and flushing of inlets on the coast of Nova Scotia. Nat. Can. 99 : 253-261.

Solorzano, L. 1969. Determination of ammonia in natural waters by the phenolhypochlorite method. Limnol. Oceanogr. 14 : 799-801.

Strickland, J.D. 1958. Solar radiation penetrating the ocean. A review of requirements, data and methods of measurement, with particular reference to photosynthetic productivity. J. Fish. Res. Bd. Can. 15 : 453-493.

Strickland, J.D. and T.R. Parsons. 1972. A practical handbook of seawater analysis, 2nd ed. Bull. Fish. Res. Bd. Can. 167.

Yentsch, C.S. and D.W. Menzel. 1963. A method for the determination of phytoplankton chlorophyll and phaeophytin by fluoresence. Deep-Sea Res. 10 : 221-231.

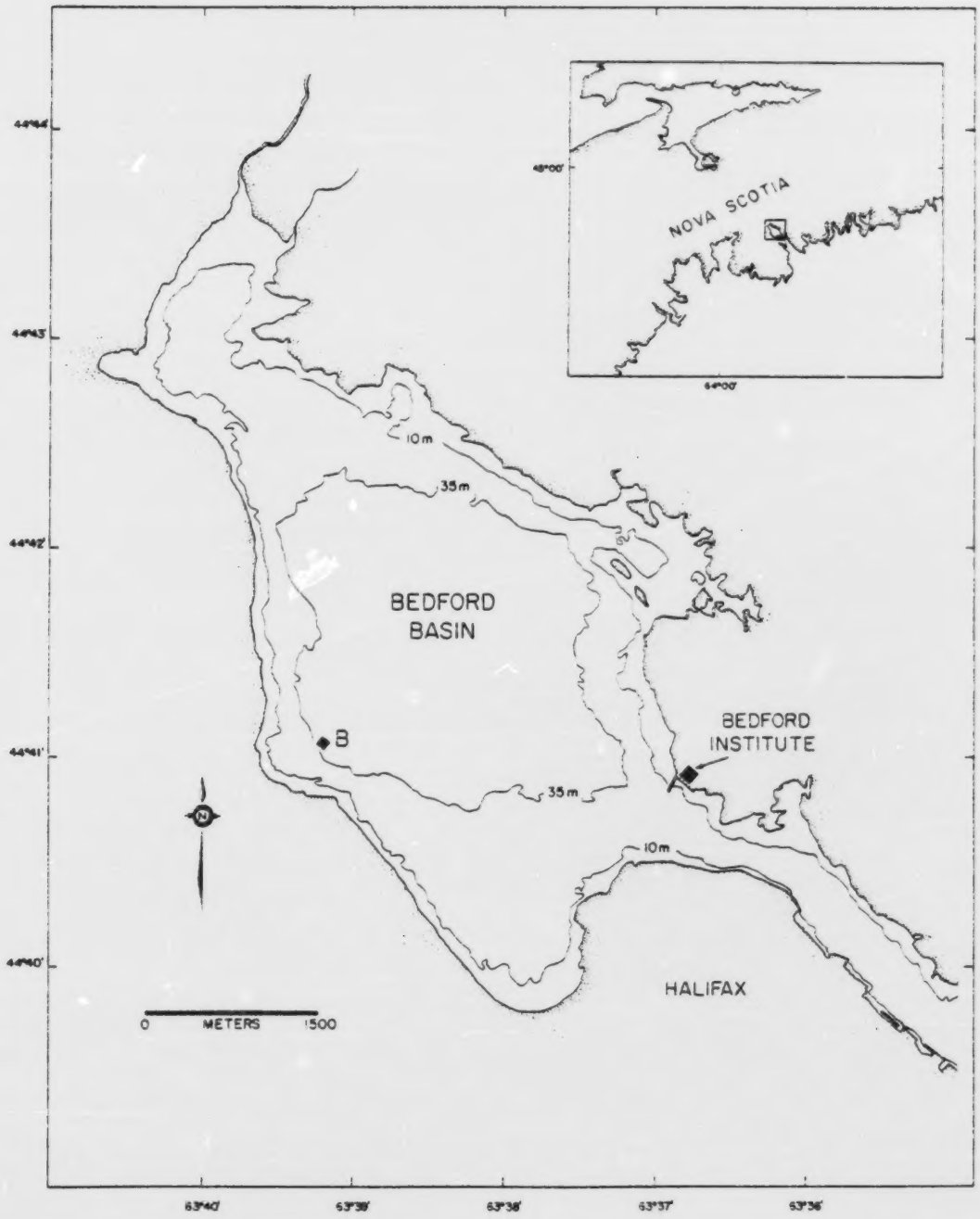

Fig. 1 Showing sampling location (B) in Bedford Basin.

LIGHT SATURATION EXPERIMENTS AND *IN SITU* PRIMARY PRODUCTION MEASUREMENTS.

BEDFORD BASIN

44°41'N 63°39'W

DATE : 18/05/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	4.37	143.0	4.46	192.0	4.09
51.2	4.24	104.0	4.74	85.3	4.26
22.9	3.52	32.7	4.40	27.2	3.52
10.0	2.23	14.3	3.23	13.6	2.41
5.8	1.28	8.1	1.92	8.1	1.68
3.7	0.84	5.0	1.77	4.7	1.21
2.2	0.51	3.2	0.95	2.9	0.60
1.3	0.30	2.1	0.64	1.7	0.35
0.8	0.17	1.1	0.34	0.8	0.17
0.6	0.09	0.8	0.23	0.5	0.07

Dark uptake: 648.7 counts/min.

In situ production rate: 3.14 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 24.4 W m^{-2}

Surface radiation during *in situ* incubation: 663.3 W m^{-2}

% Dark uptake/Light uptake: 4.6

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.26	0.14	0.18
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.02	-0.10	0.05
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.34	4.18	4.50

BEDFORD BASIN

44°41'N 63°39'W

DATE : 19/05/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.9	2.91	143.0	2.62	-	-
51.2	2.67	104.0	2.54	65.2	2.71
22.9	2.26	32.7	2.47	26.3	2.41
10.0	1.54	14.3	2.01	13.5	1.88
-	-	8.1	1.39	6.9	1.15
3.7	0.66	5.0	1.11	4.0	0.77
2.2	0.41	3.2	0.63	2.8	0.51
1.3	0.22	2.1	0.43	1.9	0.25
0.8	0.10	1.1	0.25	1.2	0.09
0.6	0.05	0.8	0.13	0.9	0.05

Dark uptake: 631.0 counts/min.

In situ production rate: 2.78 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 34.5 W m^{-2}

Surface radiation during *in situ* incubation: 743.3 W m^{-2}

% Dark uptake/Light uptake: 4.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.21	0.19	0.24
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.08	-0.13	-0.03
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	2.67	2.59	2.75

BEDFORD BASIN

44°41'N 63°39'W

DATE : 20/05/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}
126.2	4.70	143.0	4.69	148.3	4.32
51.2	4.49	104.0	4.37	65.2	4.62
22.9	2.90	32.7	3.74	26.3	3.65
10.0	1.70	14.3	2.34	13.5	2.34
5.8	0.96	8.1	1.51	6.9	1.31
3.7	0.55	5.0	1.01	4.0	0.85
2.2	0.31	3.2	0.60	2.7	0.35
1.3	0.21	2.1	0.31	1.9	0.13
0.8	0.09	1.1	0.15	1.2	0.02
0.6	0.06	0.8	0.10	0.9	0.02

Dark uptake: 625.9 counts/min.

In situ production rate: 2.71 mg C(mg Chl *a*)$^{-1}$hr^{-1}

In situ light intensity: 25.1 W m^{-2}

Surface radiation during *in situ* incubation: 647.8 W m^{-2}

% Dark uptake/Light uptake: 5.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.20	0.19	0.22
R^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	-0.12	-0.18	-0.06
P_m^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	4.60	4.49	4.72

BEDFORD BASIN

44°41'N 63°39'W

DATE : 21/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	5.09	143.0	4.96	148.3	5.23
51.2	4.25	104.0	4.42	65.2	4.85
22.9	2.79	32.7	3.69	26.3	3.97
10.0	1.54	14.3	2.40	13.5	2.34
5.8	0.87	8.1	1.55	6.9	1.28
3.7	0.57	5.0	1.08	4.0	0.87
-	-	3.2	0.62	2.7	0.35
1.3	0.15	2.1	0.35	1.9	0.12
0.8	0.09	1.1	0.17	1.2	0.04
0.6	0.04	0.8	0.10	0.9	0.00

11

Dark uptake: 473.4 counts/min.

In situ production rate: 1.15 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 12.0 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 469.1 $W\ m^{-2}$

% Dark uptake/Light uptake: 8.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.21	0.17	0.24
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.12	-0.21	-0.03
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.88	4.68	5.07

BEDFORD BASIN

44°41'N 63°39'W

DATE : 22/05/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
126.2	4.86	143.0	4.46	148.3	5.82
51.2	4.35	104.0	3.90	65.2	4.26
22.9	3.07	32.7	2.35	26.3	3.57
10.0	1.61	14.3	1.46	13.5	2.32
5.8	0.89	8.1	0.98	6.9	1.33
3.7	0.52	5.0	0.56	4.0	0.82
2.2	0.28	3.2	0.36	2.7	0.39
0.8	0.09	1.1	0.16	1.9	0.14
0.6	0.03	0.8	0.14	1.2	0.06

Dark uptake: 412.8 counts/min.

In situ production rate: 2.65 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 29.5 W m^{-2}

Surface radiation during *in situ* incubation: 703.3 W m^{-2}

% Dark uptake/Light uptake: 4.7

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.16	0.13	0.18
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.05	-0.16	0.05
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	4.67	4.30	5.03

BEDFORD BASIN

44°41'N 63°39'W

DATE : 23/05/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$
-	-	143.0	3.97	148.3	4.34
51.2	3.63	104.0	4.15	65.2	4.14
22.9	2.43	32.7	3.29	26.3	3.29
10.0	1.49	14.3	2.12	13.5	1.89
5.8	0.80	8.1	1.36	6.9	1.19
3.7	0.51	5.0	0.97	4.0	0.76
2.2	0.30	3.2	0.57	2.7	0.37
1.3	0.16	2.1	0.35	1.9	0.18
0.8	0.09	1.1	0.19	1.2	0.07
0.6	0.05	0.8	0.10	0.9	0.03

Dark uptake: 381.8 counts/min.

In situ production rate: 0.82 mg C(mg Chl *a*)$^{-1}$$hr^{-1}$

In situ light intensity: 7.8 W m^{-2}

Surface radiation during *in situ* incubation: 183.3 W m^{-2}

% Dark uptake/Light uptake: 13.6

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$(W m^{-2})$^{-1}$)	0.18	0.16	0.20
β^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$)	-0.08	-0.14	-0.02
P_m^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$)	4.07	3.91	4.22

BEDFORD BASIN

44°41'N 63°39'W

DATE : 24/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	3.50	143.0	3.56	148.3	3.85
51.2	3.30	104.0	3.18	65.2	3.51
22.9	2.20	32.7	3.17	26.3	2.83
10.0	1.30	14.3	1.76	13.5	1.53
5.8	0.65	8.1	1.16	6.9	0.87
3.7	0.35	5.0	0.69	4.0	0.63
2.9	0.20	3.2	0.45	2.8	0.24
1.3	0.11	2.1	0.21	1.9	0.13
0.8	0.03	1.1	0.12	1.2	0.01
0.6	0.04	0.8	0.08	0.9	0.03

Dark uptake: 332.4 counts/min.

In situ production rate: 0.65 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 10.8 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 200.0 $W\ m^{-2}$

% Dark uptake/Light uptake: 14.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.14	0.13	0.15
β^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.08	-0.12	-0.04
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.60	3.50	3.70

BEDFORD BASIN

44°41'N 63°39'W

DATE : 25/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	3.15	143.0	3.04	148.4	2.92
51.2	3.06	104.0	2.82	65.2	3.11
22.9	2.29	32.7	2.82	26.3	2.82
10.0	1.55	14.3	1.89	13.5	1.87
5.8	0.76	8.1	1.29	6.9	1.13
3.7	0.50	5.0	0.84	4.0	0.79
2.9	0.29	3.2	0.52	2.7	0.37
1.3	0.18	2.1	0.33	1.9	0.16
0.8	0.09	1.1	0.19	1.2	0.06
0.6	0.05	0.8	0.11	0.9	0.02

Dark uptake: 235.1 counts/min.

In situ production rate: 2.59 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 35.9 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 795.6 $W\ m^{-2}$

% Dark uptake/Light uptake: 3.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.17	0.14	0.19
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.06	-0.12	0.00
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.07	3.00	3.15

BEDFORD BASIN

44°41'N 63°39'W

DATE : 26/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	3.37	143.0	3.80	148.3	3.02
51.2	2.98	104.0	3.33	65.2	2.86
22.9	2.14	32.7	1.88	26.3	1.98
10.0	1.50	14.3	1.10	13.5	1.09
5.8	0.72	8.1	0.66	6.9	0.68
3.7	0.38	5.0	0.41	4.0	0.43
2.2	0.18	3.2	0.21	2.7	0.20
1.3	0.08	2.1	0.13	1.9	0.06
0.8	0.02	1.1	0.04	1.2	0.04
0.6	0.00	0.8	0.03	0.9	0.03

Dark uptake: 256.2 counts/min.

In situ production rate: 2.04 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 25.5 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 536.7 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.10	0.09	0.11
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.06	-0.09	-0.03
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.35	3.16	3.54

BEDFORD BASIN

44°41'N 63°39'W

DATE : 27/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
126.2	3.25	143.0	3.23	148.3	2.86
51.2	3.26	104.0	2.91	65.2	2.74
22.9	2.43	32.7	1.92	26.3	2.05
10.0	1.29	14.3	1.05	13.5	1.11
5.8	0.69	8.1	0.72	6.9	0.70
3.7	0.34	5.0	0.35	4.0	0.43
2.2	0.16	3.2	0.23	2.7	0.17
1.3	0.05	2.1	0.11	1.9	0.11
0.8	0.00	1.1	0.02	1.2	0.04
0.6	0.00	0.8	0.03	0.9	0.03

17

Dark uptake: 255.5 counts/min.

In situ production rate: 0.67 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 10.2 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 140.0 $W\ m^{-2}$

% Dark uptake/Light uptake: 13.6

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.11	0.10	0.12
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.08	-0.12	0.05
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.12	2.95	3.29

BEDFORD BASIN

44°41'N 63°39'W

DATE : 28/05/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.12	125.0	3.82	125.0	3.30
58.8	4.51	50.8	3.64	50.8	2.48
23.9	3.08	21.6	2.08	21.6	1.46
12.7	1.51	12.3	1.19	12.3	0.85
7.2	0.87	6.8	0.92	6.8	0.54
4.1	0.44	3.9	0.48	3.9	0.31
2.9	0.24	2.8	0.29	2.8	0.18
2.0	0.12	2.1	0.15	2.1	0.09
1.4	0.09	1.7	0.07	1.7	0.03
1.1	0.03	1.3	0.07	1.3	0.04

Dark uptake: 241.8 counts/min.

In situ production rate: 1.99 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 12.9 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 215.6 $W\ m^{-2}$

% Dark uptake/Light uptake: 6.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.13	0.12	0.15
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.14	-0.20	-0.08
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.88	3.55	4.21

BEDFORD BASIN

44°41'N 63°39'W

DATE : 29/05/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.28	125.0	3.52	125.0	4.74
58.8	4.14	50.8	3.48	50.8	4.06
23.9	2.85	21.6	2.40	21.6	2.98
12.7	1.55	12.3	1.29	12.3	2.40
7.2	0.80	6.8	0.94	6.8	1.38
4.1	0.44	4.0	0.55	3.9	0.52
2.9	0.15	2.8	0.37	2.8	0.51
2.0	0.06	2.1	0.21	2.1	0.25
1.4	0.04	1.7	0.11	1.7	0.12
1.1	0.03	1.3	0.06	1.3	0.01

Dark uptake: 291.4 counts/min.

In situ production rate: 2.63 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 19.8 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 674.4 $W\ m^{-2}$

% Dark uptake/Light uptake: 6.0

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.18	0.14	0.21
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.18	-0.28	-0.08
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.25	4.01	4.49

BEDFORD BASIN

44°41'N 63°39'W

DATE : 30/05/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.73	125.0	4.64	125.0	4.88
58.8	4.53	50.8	4.21	50.8	4.29
23.9	3.11	21.6	2.36	21.6	2.93
12.7	1.60	12.3	1.34	12.3	1.63
7.2	0.88	6.8	0.92	6.8	0.95
4.1	0.44	3.9	0.53	3.9	0.56
2.9	0.14	2.8	0.30	2.8	0.26
2.0	0.03	2.1	0.13	2.1	0.14
1.4	0.06	1.7	0.06	1.7	0.05
1.1	0.01	1.3	0.02	1.3	0.04

Dark uptake: 322.4 counts/min.

In situ production rate: 3.27 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 26.7 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 752.2 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.6

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.18	0.15	0.21
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.23	-0.31	-0.15
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.85	4.69	5.01

BEDFORD BASIN

44°41'N 63°39'W

DATE : 31/05/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.01	125.0	4.02	125.0	3.90
58.8	4.46	50.8	3.66	50.8	3.96
23.9	3.45	21.6	2.30	21.6	2.83
-	-	12.3	1.41	12.3	1.70
7.2	0.99	6.8	0.98	6.8	1.10
4.1	0.55	3.9	0.58	3.9	0.69
2.9	0.26	2.8	0.35	2.8	0.35
2.0	0.12	2.1	0.23	2.1	0.16
1.4	0.06	1.7	0.11	1.7	0.11
-	-	1.3	0.04	1.4	0.03

Dark uptake: 229.9 counts/min.

In situ production rate: 2.64 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 8.9 W m^{-2}

Surface radiation during *in situ* incubation: 103.3 W m^{-2}

% Dark uptake/Light uptake: 3.0

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.21	0.19	0.24
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.26	-0.32	-0.19
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.20	3.99	4.41

BEDFORD BASIN

44°41'N 63°39'W

DATE : 01/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	5.17	125.0	4.98	125.0	4.49
58.8	5.50	50.8	4.58	50.8	5.30
23.9	3.85	21.6	2.81	21.6	3.22
12.7	2.19	12.3	1.69	12.3	1.91
7.2	1.17	6.8	1.22	6.8	1.29
4.1	0.68	3.9	0.78	3.9	0.89
2.9	0.32	2.8	0.45	2.8	0.43
2.0	0.15	2.1	0.26	2.1	0.21
1.4	0.09	1.7	0.13	1.7	0.09
1.1	0.05	1.3	0.06	1.3	0.03

Dark uptake: 500.4 counts/min.

In situ production rate: 0.49 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 8.3 W m^{-2}

Surface radiation during *in situ* incubation: 128.9 W m^{-2}

% Dark uptake/Light uptake: 11.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.21	0.19	0.23
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.20	-0.27	-0.13
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.21	4.99	5.43

BEDFORD BASIN

44°41'N 63°39'W

SAMPLE DEPTH: 5 m

DATE : 02/06/75

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.60	125.0	4.38	125.0	4.13
58.8	4.49	50.8	4.10	-	-
23.9	2.84	21.6	2.50	21.6	2.79
12.7	1.60	12.3	1.47	-	-
7.2	0.97	6.8	0.88	6.8	0.89
4.1	0.42	3.9	0.52	3.9	0.55
2.9	0.20	2.8	0.28	2.8	0.24
2.0	0.09	2.1	0.12	2.1	0.09
1.4	0.04	1.7	0.05	1.7	0.04
1.1	0.03	1.3	0.05	1.3	0.05

Dark uptake: 745.0 counts/min.

In situ production rate: 2.03 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 26.6 W m^{-2}

Surface radiation during *in situ* incubation: 781.1 W m^{-2}

% Dark uptake/Light uptake: 5.1

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.16	0.15	0.17
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.20	-0.23	-0.16
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.59	4.48	4.70

BEDFORD BASIN

44°41'N 63°39'W

DATE : 03/06/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	3.57	-	-	125.0	3.61
58.8	3.59	50.8	3.33	50.8	3.27
23.9	2.66	21.6	1.92	21.6	2.32
12.7	1.65	12.3	1.00	12.3	1.35
7.2	0.79	6.8	0.70	6.8	0.78
-	-	3.9	0.38	3.9	0.43
2.9	0.14	2.8	0.21	2.8	0.19
2.0	0.08	2.1	0.14	2.1	0.09
1.4	0.03	1.7	0.05	1.7	0.05
1.1	0.02	1.4	0.04	1.3	0.01

Dark uptake: 761.1 counts/min.

In situ production rate: 1.26 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 15.5 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 785.6 $W\ m^{-2}$

% Dark uptake/Light uptake: 10.4

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.13	0.12	0.14
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.16	-0.19	-0.13
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.74	3.62	3.87

BEDFORD BASIN

44°41'N 63°39'W

DATE : 04/06/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	3.37	125.0	2.90	125.0	3.02
58.8	2.76	50.8	2.32	50.8	2.60
23.9	2.10	21.6	1.25	21.6	1.43
12.7	0.99	12.3	0.73	12.3	0.83
7.2	0.49	6.8	0.51	6.8	0.41
4.1	0.18	3.9	0.20	3.9	0.18
2.9	0.08	2.8	0.10	2.8	0.08
2.0	0.03	2.1	0.04	2.1	0.03
1.4	0.02	1.7	0.00	1.7	0.00
1.1	0.02	1.4	0.00	1.3	0.00

Dark uptake: 636.2 counts/min.

In situ production rate: 1.72 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 17.3 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 702.2 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.08	0.07	0.09
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.12	-0.15	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.18	3.04	3.32

BEDFORD BASIN

44°41'N 63°39'W

DATE : 05/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.8	4.05	125.0	3.81	125.0	3.97
58.8	3.88	50.8	2.96	50.8	3.27
23.9	2.35	21.6	1.48	21.6	1.99
12.7	1.27	-	-	12.3	1.20
-	-	6.8	0.44	6.8	0.57
4.1	0.23	3.9	0.22	3.9	0.34
-	-	2.8	0.15	2.8	0.12
2.0	0.03	2.1	0.08	2.1	0.06
1.4	0.08	1.7	0.07	1.7	0.01
1.1	0.01	1.3	0.02	1.4	0.01

Dark uptake: 742.6 counts/min.

In situ production rate: 1.08 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 10.0 W m^{-2}

Surface radiation during *in situ* incubation: 554.4 W m^{-2}

% Dark uptake/Light uptake: 12.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.11	0.10	0.11
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.15	-0.18	-0.11
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.07	3.91	4.23

BEDFORD BASIN

44°41'N 63°39'W

DATE : 06/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
125.0	4.23	125.0	3.75	125.0	3.57
50.8	3.26	50.8	3.39	50.8	3.25
21.6	2.23	21.6	1.70	21.6	2.21
12.3	1.10	12.3	0.89	12.3	1.25
6.8	0.61	6.8	0.50	6.8	0.71
3.9	0.22	3.9	0.33	3.9	0.37
2.8	0.09	2.8	0.19	2.8	0.15
2.1	0.07	2.1	0.06	2.1	0.07
1.7	0.03	1.7	0.04	1.7	0.03
1.3	0.02	1.3	0.03	1.3	0.01

Dark uptake: 596.0 counts/min.

In situ production rate: 1.73 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 14.8 W m^{-2}

Surface radiation during *in situ* incubation: 648.9 W m^{-2}

% Dark uptake/Light uptake: 7.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.11	0.10	0.12
β^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.15	-0.19	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	3.96	3.82	4.10

BEDFORD BASIN

44°41'N 63°39'W

DATE : 07/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
125.0	3.62	125.0	2.99	125.0	3.10
50.8	3.62	50.8	2.84	50.8	2.77
21.6	2.81	21.6	1.98	21.6	1.89
12.3	1.41	12.3	0.98	12.3	1.27
6.8	0.67	6.8	0.53	6.8	0.74
3.9	0.33	3.9	0.27	3.9	0.42
2.8	0.15	2.8	0.16	2.8	0.18
2.1	0.05	2.1	0.09	2.1	0.09
1.7	0.02	1.7	0.10	1.7	0.03
1.3	0.00	1.3	0.03	1.3	0.02

Dark uptake: 347.5 counts/min.

In situ production rate: 1.06 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 12.5 W m^{-2}

Surface radiation during *in situ* incubation: 195.6 W m^{-2}

% Dark uptake/Light uptake: 6.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.12	0.11	0.13
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.15	-0.19	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	3.43	3.22	3.63

BEDFORD BASIN

44°41'N 63°39'W

DATE : 08/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}
125.0	3.21	125.0	3.40	125.0	3.07
50.8	3.50	50.8	3.28	50.8	3.16
21.6	2.33	21.6	1.56	21.6	2.01
12.3	1.17	12.3	0.76	12.3	1.11
6.8	0.57	6.8	0.41	6.8	0.64
3.9	0.27	3.9	0.24	3.9	0.37
2.8	0.10	2.8	0.09	2.8	0.17
2.1	0.04	2.1	0.04	2.1	0.09
1.7	0.01	1.7	0.01	1.7	0.02
1.3	0.01	1.3	0.00	1.3	0.00

Dark uptake: 255.4 counts/min.

In situ production rate: 0.17 mg C(mg Chl *a*)$^{-1}$hr^{-1}

In situ light intensity: 3.4 W m^{-2}

Surface radiation during *in situ* incubation: 80.0 W m^{-2}

% Dark uptake/Light uptake: 18.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.10	0.09	0.12
R^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	-0.15	-0.19	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	3.56	3.38	3.73

BEDFORD BASIN

44°41'N 63°39'W

DATE : 09/06/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
125.0	4.22	125.0	4.29	125.0	3.86
50.8	4.44	50.8	3.87	50.8	4.07
21.6	2.99	21.6	2.02	21.6	2.42
12.3	1.58	12.3	0.96	12.3	1.34
6.8	0.79	6.8	0.58	6.8	0.85
3.9	0.41	3.9	0.39	3.9	0.52
2.8	0.21	2.8	0.14	2.8	0.25
2.1	0.12	2.1	0.09	2.1	0.13
1.7	0.06	1.7	0.04	1.7	0.08
1.3	0.02	1.3	0.03	1.3	0.03

Dark uptake:	215.1	counts/min.
In situ production rate:	0.86	mg C(mg Chl a)$^{-1}hr^{-1}$
In situ light intensity:	6.6	$W\ m^{-2}$
Surface radiation during *in situ* incubation:	202.2	$W\ m^{-2}$
% Dark uptake/Light uptake:	9.3	

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.14	0.12	0.15
β^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.16	-0.21	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.44	4.23	4.64

BEDFORD BASIN

44°41'N 63°39'W

DATE : 10/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
125.0	3.44	125.0	3.00	125.0	3.03
50.8	3.12	50.8	2.73	50.8	3.04
21.6	2.43	21.6	1.46	21.6	2.04
12.3	1.27	12.3	0.81	12.3	1.01
6.8	0.61	6.8	0.47	6.8	0.64
3.9	0.30	3.9	0.22	3.9	0.36
2.8	0.13	2.8	0.12	2.8	0.18
2.1	0.07	2.1	0.10	2.1	0.08
1.7	0.03	1.7	0.03	1.7	0.03
1.3	0.01	1.3	0.00	1.3	0.03

Dark uptake: 237.1 counts/min.

In situ production rate: 2.19 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 22.4 W m^{-2}

Surface radiation during *in situ* incubation: 832.2 W m^{-2}

% Dark uptake/Light uptake: 3.1

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.11	0.10	0.11
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.14	-0.17	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.33	3.17	3.50

BEDFORD BASIN

44°41'N 63°39'W

DATE : 11/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}
113.8	4.18	104.1	3.66	120.3	3.71
53.4	3.50	47.3	2.99	57.7	3.13
22.7	2.19	24.6	1.52	22.7	1.94
12.3	1.07	13.3	0.69	13.3	1.06
-	-	6.8	0.38	6.8	0.55
-	-	3.9	0.28	3.9	0.29
2.8	0.06	2.8	0.08	2.8	0.11
2.1	0.04	2.1	0.03	2.1	0.05
1.7	0.02	1.7	0.03	1.7	0.04
-	-	1.4	0.01	1.4	0.02

Dark uptake: 255.8 counts/min.

In situ production rate: 2.65 mg C(mg Chl a)$^{-1}$hr^{-1}

In situ light intensity: 30.1 W m^{-2}

Surface radiation during *in situ* incubation: 794.4 W m^{-2}

% Dark uptake/Light uptake: 6.0

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.08	0.07	0.09
R^B (mg C(mg Chl a)$^{-1}$hr^{-1})	-0.11	-0.16	-0.05
P_m^B (mg C(mg Chl a)$^{-1}$hr^{-1})	4.11	3.88	4.35

BEDFORD BASIN

44°41'N 63°39'W

DATE : 12/06/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}$hr^{-1}
138.6	4.21	110.0	4.13	123.5	3.78
44.8	4.17	41.3	3.29	59.4	3.50
21.8	2.53	21.8	1.70	26.5	2.20
11.3	1.23	13.3	0.79	15.1	1.03
6.8	0.61	6.8	0.37	6.8	0.57
3.9	0.21	3.9	0.19	3.9	0.32
2.8	0.10	2.8	0.12	2.8	0.15
2.1	0.04	2.1	0.06	2.1	0.06
1.7	0.03	1.7	0.02	1.7	0.02
1.3	0.02	1.3	0.03	1.3	0.05

Dark uptake: 309.3 counts/min.

In situ production rate: 3.28 mg C(mg Chl a)$^{-1}$hr^{-1}

In situ light intensity: 41.0 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 266.7 $W\ m^{-2}$

% Dark uptake/Light uptake: 3.4

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}$hr^{-1}($W\ m^{-2}$)$^{-1}$)	0.09	0.08	0.11
R^B (mg C(mg Chl a)$^{-1}$hr^{-1})	-0.13	-0.17	-0.09
P_m^B (mg C(mg Chl a)$^{-1}$hr^{-1})	4.36	4.04	4.67

BEDFORD BASIN

44°41'N 63°39'W

DATE : 13/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
119.7	4.13	120.8	4.35	133.7	4.24
56.0	4.13	48.2	3.36	49.1	3.76
21.8	2.96	18.9	1.64	21.8	2.22
13.3	1.34	13.3	0.77	12.3	1.10
6.8	0.53	6.8	0.38	6.8	0.67
3.9	0.22	3.9	0.18	3.9	0.29
2.8	0.09	2.8	0.13	2.8	0.18
2.1	0.06	2.1	0.07	2.1	0.12
1.7	0.03	1.7	0.10	1.7	0.03
1.3	0.01	1.3	0.01	1.3	0.02

Dark uptake: 356.3 counts/min.

In situ production rate: 2.41 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 24.7 W m^{-2}

Surface radiation during *in situ* incubation: 704.4 W m^{-2}

% Dark uptake/Light uptake: 4.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.08	0.11
λ^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.13	-0.17	-0.08
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.58	4.26	4.89

BEDFORD BASIN

44°41'N 63°39'W

DATE : 14/06/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
137.5	5.70	136.4	5.71	146.1	5.45
62.0	5.33	48.2	4.41	49.9	5.13
26.5	3.74	-	-	22.7	3.13
14.2	2.04	10.4	1.00	13.3	1.67
6.8	1.00	6.8	0.50	6.8	0.94
3.9	0.54	3.9	0.27	3.9	0.53
2.8	0.32	2.8	0.18	2.8	0.20
2.1	0.14	2.1	0.12	2.1	0.14
1.7	0.09	1.7	0.03	1.7	0.02
1.3	0.03	1.3	0.02	1.3	0.02

Dark uptake: 269.0 counts/min.

In situ production rate: 1.00 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 12.2 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 150.0 $W\ m^{-2}$

% Dark uptake/Light uptake: 6.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.14	0.13	0.15
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.16	-0.24	-0.09
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.89	5.68	6.11

BEDFORD BASIN

44°41'N 63°39'W

DATE : 15/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.3	6.15	138.6	6.17	142.9	5.50
64.6	5.66	50.8	4.74	58.5	5.50
26.5	4.13	18.0	2.62	22.7	3.43
13.3	2.06	12.3	1.10	12.3	1.80
6.8	0.94	6.8	0.47	6.8	1.04
3.9	0.53	3.9	0.21	3.9	0.64
2.8	0.25	2.8	0.11	2.8	0.30
2.1	0.10	2.1	0.10	2.1	0.10
1.7	0.04	1.7	0.01	1.7	0.05
1.3	0.02	1.3	0.01	1.3	0.05

Dark uptake: 442.0 counts/min.

In situ production rate: 2.52 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 18.1 W m^{-2}

Surface radiation during *in situ* incubation: 463.3 W m^{-2}

% Dark uptake/Light uptake: 2.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.16	0.15	0.17
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.23	-0.32	-0.14
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	6.21	5.96	6.46

BEDFORD BASIN

44°41'N 63°39'W

SAMPLE DEPTH: 5 m

DATE : 16/06/75

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
125.0	5.37	125.0	5.41	125.0	5.15
50.8	5.03	50.8	4.34	50.8	5.00
21.6	3.26	21.6	2.05	21.6	2.91
12.3	1.60	12.3	0.82	12.3	1.45
6.8	0.81	6.8	0.45	6.8	0.73
3.9	0.34	3.9	0.21	3.9	0.33
2.8	0.20	2.8	0.12	2.8	0.15
2.1	0.05	2.1	0.07	2.1	0.04
1.7	0.02	1.7	0.02	1.7	0.05
1.3	0.04	1.3	0.03	1.3	0.01

Dark uptake:	601.3 counts/min.
In situ production rate:	3.46 mg C(mg Chl a)$^{-1}hr^{-1}$
In situ light intensity:	22.7 $W\ m^{-2}$
Surface radiation during *in situ* incubation:	706.7 $W\ m^{-2}$
% Dark uptake/Light uptake:	3.2

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.12	0.11	0.14
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.17	-0.23	-0.12
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.74	5.38	6.11

BEDFORD BASIN

44°41'N 63°39'W

DATE : 17/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
117.0	7.18	107.9	6.37	121.9	6.61
54.2	6.41	42.2	5.01	43.1	5.76
24.6	3.91	20.8	2.52	18.9	3.11
12.8	1.80	12.3	1.09	11.3	1.54
7.7	0.85	7.1	0.60	7.7	0.79
4.7	0.39	4.6	0.27	5.0	0.45
3.9	0.18	3.5	0.17	4.0	0.19
3.2	0.07	3.1	0.22	3.2	0.11
2.7	0.04	-	-	2.5	0.05
2.3	0.04	2.5	0.03	2.3	0.01

Dark uptake: 691.3 counts/min.

In situ production rate: 3.04 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 19.6 W m^{-2}

Surface radiation during *in situ* incubation: 600.0 W m^{-2}

% Dark uptake/Light uptake: 4.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.17	0.16	0.18
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.41	-0.47	-0.36
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	7.41	7.08	7.74

BEDFORD BASIN

44°41'N 63°39'W

DATE : 18/06/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
107.9	7.08	113.3	5.65	119.7	6.19
49.1	5.15	42.2	4.25	46.5	5.86
20.3	3.09	17.5	1.91	19.9	2.84
11.3	1.41	9.5	0.88	11.3	1.33
6.1	0.65	5.8	0.42	6.4	0.74
3.5	0.23	2.9	0.20	3.7	0.34
2.5	0.08	2.5	0.11	2.4	0.16
1.7	0.04	1.8	0.05	1.5	0.11
1.2	0.06	1.4	0.02	1.1	0.03
0.9	0.01	1.0	0.04	0.9	0.01

Dark uptake: 567.6 counts/min.

In situ production rate: 3.65 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 27.1 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 540.0 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.13	0.12	0.13
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.15	-0.19	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	6.83	6.34	7.32

BEDFORD BASIN

44°41'N 63°39'W

DATE : 19/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
123.5	5.80	139.1	5.45	134.8	5.18
57.7	5.61	45.6	5.41	48.2	5.33
21.8	3.32	19.9	2.89	21.8	3.50
11.8	1.77	11.2	1.22	11.5	1.60
6.6	0.89	6.5	0.62	7.4	0.80
2.8	0.35	3.2	0.28	4.3	0.35
1.7	0.15	2.2	0.15	2.6	0.14
1.0	0.07	1.8	0.10	1.7	0.05
0.9	0.05	1.3	0.04	1.0	0.05
0.7	0.02	0.9	0.06	0.6	0.03

Dark uptake:	424.4	counts/min.
In situ production rate:	3.94	mg C(mg Chl *a*)$^{-1}hr^{-1}$
In situ light intensity:	30.5	W m^{-2}
Surface radiation during *in situ* incubation:	701.1	W m^{-2}
% Dark uptake/Light uptake:	3.0	

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.14	0.13	0.15
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.13	-0.18	-0.07
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.97	5.60	6.34

BEDFORD BASIN

44°41'N 63°39'W

DATE : 20/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
132.9	6.02	125.0	5.84	148.4	5.96
67.8	5.55	50.8	4.74	64.9	4.91
25.6	3.17	21.6	2.68	30.2	2.98
13.3	1.76	12.3	1.29	15.3	1.28
7.2	0.70	6.8	0.72	9.1	0.58
4.1	0.31	3.9	0.33	5.4	0.28
3.0	0.14	2.8	0.29	3.8	0.10
2.0	0.08	2.1	0.10	2.7	0.01
1.2	0.04	1.7	0.04	1.7	0.00
1.0	0.02	1.3	0.10	1.4	0.00

Dark uptake: 470.0 counts/min.

In situ production rate: 2.81 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 25.0 W m^{-2}

Surface radiation during *in situ* incubation: 770.0 W m^{-2}

% Dark uptake/Light uptake: 5.0

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.11	0.10	0.12
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.15	-0.24	-0.06
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	6.33	6.05	6.60

BEDFORD BASIN

44°41'N 63°39'W

DATE : 21/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
129.4	6.02	142.9	5.44	163.9	5.94
70.6	6.18	-	-	63.7	5.93
24.1	3.62	27.9	2.92	27.4	3.83
11.8	1.97	14.2	1.53	12.3	1.97
7.3	0.88	8.5	0.91	7.1	1.01
4.3	0.40	5.3	0.58	4.5	0.57
3.2	0.20	4.0	0.32	3.2	0.31
2.2	0.10	2.8	0.20	1.9	0.11
1.4	0.04	1.9	0.13	1.2	0.04
1.1	0.03	1.7	0.05	1.0	0.03

Dark uptake:	300.5	counts/min.
In situ production rate:	3.46	mg C(mg Chl *a*)$^{-1}hr^{-1}$
In situ light intensity:	25.5	W m^{-2}
Surface radiation during *in situ* incubation:	684.4	W m^{-2}
% Dark uptake/Light uptake:	4.1	

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.14	0.13	0.15
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.59	-0.64	-0.54
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	6.25	5.93	6.57

BEDFORD BASIN

44°41'N 63°39'W

DATE : 22/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
132.1	5.04	155.3	4.86	172.6	4.73
77.5	4.93	68.9	4.27	71.5	5.38
28.4	2.90	28.4	2.50	28.9	3.31
13.7	1.64	14.4	1.44	17.8	1.63
8.0	0.72	9.3	0.79	7.0	0.85
4.7	0.29	5.3	0.45	4.5	0.45
3.1	0.12	3.7	0.19	3.2	0.20
2.1	0.05	2.5	0.14	2.0	0.05
1.3	0.04	1.7	0.09	1.3	0.03
1.0	0.00	1.4	0.04	1.0	0.02

Dark uptake: 317.3 counts/min.

In situ production rate: 2.52 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 26.2 W m^{-2}

Surface radiation during *in situ* incubation: 712.2 W m^{-2}

% Dark uptake/Light uptake: 5.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.12	0.11	0.13
β^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.17	-0.23	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.19	4.99	5.39

BEDFORD BASIN

44°41'N 63°39'W

DATE : 23/06/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
132.1	4.53	148.3	3.96	160.2	4.04
56.8	4.52	53.4	3.41	57.7	4.15
23.6	2.61	28.4	2.25	19.9	2.78
12.8	1.49	15.6	1.18	10.6	1.32
7.6	0.72	9.5	0.72	6.6	0.63
4.7	0.29	5.9	0.38	4.3	0.34
3.2	0.16	4.2	0.25	3.1	0.15
2.3	0.08	3.2	0.15	2.0	0.05
1.5	0.03	2.0	0.07	1.3	0.03
1.2	0.02	1.7	0.03	1.1	0.01

Dark uptake: 260.7 counts/min.

In situ production rate: 2.80 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 35.4 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 697.8 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.0

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.10	0.09	0.11
β^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.13	-0.16	-0.09
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	4.54	4.18	4.89

BEDFORD BASIN

44°41'N 63°39'W

DATE : 24/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
134.3	4.38	142.9	4.61	172.6	4.39
68.0	4.17	68.9	3.83	62.4	4.16
27.4	2.39	33.1	2.19	25.5	2.70
13.7	1.31	16.6	1.35	12.3	1.22
6.9	0.59	9.5	0.65	6.6	0.63
4.3	0.25	5.7	0.37	4.3	0.32
3.0	0.13	4.2	0.19	3.2	0.16
2.1	0.06	3.0	0.15	2.0	0.07
1.5	0.06	2.0	0.05	1.3	0.01
1.3	0.01	1.5	0.02	1.0	0.02

Dark uptake: 314.5 counts/min.

In situ production rate: 2.98 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 38.7 W m^{-2}

Surface radiation during *in situ* incubation: 624.4 W m^{-2}

% Dark uptake/Light uptake: 5.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.09	0.10
β^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.13	-0.17	-0.09
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	4.65	4.47	4.82

BEDFORD BASIN

44°41'N 63°39'W

DATE : 25/06/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
132.1	4.50	167.2	4.31	137.5	4.35
63.7	4.23	61.6	3.72	46.5	3.16
27.0	2.40	30.3	2.15	21.3	1.91
13.7	1.15	16.1	1.07	10.9	1.03
8.1	0.59	9.7	0.64	6.1	0.46
4.6	0.26	5.8	0.31	3.7	0.24
3.2	0.10	3.8	0.13	2.5	0.14
2.2	0.01	2.8	0.12	1.6	0.04
1.4	0.00	1.7	0.03	1.0	0.03
1.1	0.02	1.5	0.00	0.8	0.01

Dark uptake: 313.4 counts/min.

In situ production rate: 3.44 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 36.3 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 787.8 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.08	0.08	0.09
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.10	-0.15	-0.06
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.66	4.47	4.85

BEDFORD BASIN

44°41'N 63°39'W

DATE : 26/06/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
140.2	3.84	148.3	3.54	178.0	4.15
80.1	3.76	80.9	3.40	81.8	3.79
26.5	2.33	30.3	1.93	24.6	2.01
14.2	1.35	17.3	1.16	15.1	1.10
8.3	0.53	10.2	0.68	8.1	0.53
4.8	0.24	6.1	0.35	4.0	0.24
3.2	0.12	4.2	0.18	2.9	0.13
2.2	0.06	3.0	0.10	1.9	0.06
1.4	0.01	1.9	0.05	1.2	0.02
1.3	0.01	1.6	0.01	0.7	0.01

Dark uptake: 277.6 counts/min.

In situ production rate: 2.78 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 43.8 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 704.4 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.2

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.08	0.08	0.09
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.11	-0.16	-0.07
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.01	3.86	4.17

BEDFORD BASIN

44°41'N 63°39'W

DATE : 27/06/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
140.2	5.77	153.7	5.11	175.3	5.41
68.9	5.23	71.9	4.58	71.9	5.44
28.4	3.45	30.3	2.79	25.1	3.00
14.2	1.69	15.6	1.63	11.8	1.44
7.9	0.88	10.6	0.95	7.8	0.75
5.2	0.37	6.3	0.52	4.5	0.45
3.4	0.13	4.3	0.26	3.3	0.20
2.3	0.06	3.4	0.12	2.0	0.06
1.5	0.01	2.9	0.08	1.3	0.01
1.2	0.01	1.7	0.00	1.1	0.03

Dark uptake: 320.5 counts/min.

In situ production rate: 3.57 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 40.2 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 733.3 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.12	0.11	0.13
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.15	-0.21	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.71	5.48	5.95

BEDFORD BASIN

44°41'N 63°39'W

DATE : 28/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
139.7	5.00	141.3	4.49	167.2	4.98
69.7	4.99	62.0	3.90	66.7	4.38
26.5	2.92	27.4	2.10	24.1	2.57
14.7	1.45	15.1	1.07	12.3	1.40
8.2	0.71	9.9	0.67	7.4	0.69
4.3	0.27	6.2	0.35	4.7	0.40
2.8	0.15	4.2	0.22	3.4	0.15
1.9	0.05	2.8	0.10	2.1	0.07
1.3	0.05	2.0	0.04	1.4	0.03
1.1	0.03	1.5	0.02	1.2	0.01

Dark uptake: 293.4 counts/min.

In situ production rate: 3.52 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 47.5 W m^{-2}

Surface radiation during *in situ* incubation: 785.6 W m^{-2}

% Dark uptake/Light uptake: 3.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.09	0.11
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.13	-0.20	-0.06
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.13	4.86	5.39

BEDFORD BASIN

44°41'N 63°39'W

DATE : 29/06/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
140.2	5.24	145.6	4.77	172.6	4.67
67.1	4.83	62.0	3.74	64.6	4.20
26.5	2.94	-	-	26.0	2.64
12.8	1.45	16.1	2.48	12.3	1.36
8.2	0.71	10.4	1.42	7.4	0.70
4.6	0.26	6.0	0.78	4.7	0.44
3.1	0.13	4.0	0.43	3.4	0.19
2.2	0.04	2.8	0.21	2.0	0.06
1.4	0.01	1.8	0.11	1.3	0.04
1.3	0.00	1.6	0.03	1.0	0.02

50

Dark uptake: 359.0 counts/min.

In situ production rate: 0.89 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 10.8 W m^{-2}

Surface radiation during *in situ* incubation: 235.6 W m^{-2}

% Dark uptake/Light uptake: 7.5

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.13	0.12	0.14
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.18	-0.24	-0.11
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.96	4.73	5.18

BEDFORD BASIN

44°41'N 63°39'W

DATE : 30/06/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
137.5	5.03	146.1	4.83	171.2	5.27
75.8	5.22	77.5	3.93	76.6	4.81
29.3	3.25	34.1	2.87	28.2	3.22
14.2	1.87	16.1	1.68	11.8	1.67
8.5	0.94	10.2	1.09	7.1	0.97
5.1	0.49	6.3	0.72	5.0	0.63
3.1	0.29	4.3	0.40	2.7	0.27
2.1	0.12	3.1	0.26	1.9	0.12
1.3	0.04	2.0	0.11	1.0	0.03
1.2	0.02	1.6	0.10	0.7	0.03

Dark uptake: 306.0 counts/min.

In situ production rate: 2.53 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 25.9 W m^{-2}

Surface radiation during *in situ* incubation: 704.4 W m^{-2}

% Dark uptake/Light uptake: 4.1

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.13	0.12	0.14
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.10	-0.16	-0.04
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.05	4.84	5.26

BEDFORD BASIN

44°41'N 63°39'W

DATE : 01/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
144.5	5.16	144.0	4.73	183.4	5.45
79.2	5.45	67.1	4.20	74.9	5.37
27.4	3.13	34.1	2.55	23.7	3.25
14.3	1.72	-	-	13.2	1.54
8.3	0.79	10.4	0.98	7.0	0.71
4.5	0.38	6.1	0.51	4.3	0.36
3.2	0.22	4.5	0.31	2.5	0.14
2.2	0.07	3.0	0.21	1.8	0.02
1.3	0.03	2.0	0.09	0.9	0.02
1.0	0.01	1.6	0.05	0.7	0.01

Dark uptake: 310.6 counts/min.

In situ production rate: 2.45 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 25.1 W m^{-2}

Surface radiation during *in situ* incubation: 745.6 W m^{-2}

% Dark uptake/Light uptake: 4.6

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.12	0.12	0.13
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.16	-0.20	-0.13
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.39	5.11	5.67

BEDFORD BASIN

44°41'N 63°39'W

DATE : 02/07/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
129.4	5.75	148.3	4.96	144.0	5.18
74.0	5.47	57.7	4.33	47.3	4.27
27.4	3.28	32.2	2.51	22.7	2.01
14.7	1.45	15.1	1.23	11.8	0.87
8.1	0.77	9.5	0.77	7.4	0.43
4.2	0.32	5.7	0.41	3.2	0.21
2.7	0.14	4.2	0.20	2.3	0.08
1.8	0.07	3.0	0.11	1.7	0.04
1.1	0.04	1.8	0.05	0.8	0.04
0.7	0.02	1.4	0.02	0.6	0.00

Dark uptake: 345.3 counts/min.

In situ production rate: 5.14 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 27.5 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 736.7 $W\ m^{-2}$

% Dark uptake/Light uptake: 3.0

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.09	0.09	0.10
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.10	-0.14	-0.06
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.75	5.36	6.14

BEDFORD BASIN

44°41'N 63°39'W

DATE : 03/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
126.7	5.30	149.4	4.06	142.9	4.11
64.6	4.89	56.0	3.36	49.1	3.97
25.5	2.80	27.4	1.96	22.7	2.14
13.2	1.34	14.2	1.22	9.9	1.06
7.3	0.52	8.9	0.65	6.6	0.45
3.7	0.21	5.1	0.35	3.3	0.25
2.5	0.09	3.4	0.20	2.3	0.07
1.7	0.02	2.5	0.09	1.3	0.05
1.0	0.02	1.6	0.05	0.9	0.02
0.7	0.00	1.1	0.02	0.4	0.01

Dark uptake: 425.7 counts/min.

In situ production rate: 1.35 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 18.3 W m^{-2}

Surface radiation during *in situ* incubation: 320.0 W m^{-2}

% Dark uptake/Light uptake: 6.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.09	0.11
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.11	-0.15	-0.06
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	4.77	4.43	5.12

BEDFORD BASIN

44°41'N 63°39'W

DATE : 04/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
134.3	4.15	147.8	4.25	140.2	3.84
65.4	4.00	61.6	3.58	44.4	3.61
27.1	2.72	29.3	2.29	19.7	2.12
13.8	1.59	15.6	1.25	10.3	1.02
7.2	0.84	9.2	0.76	6.6	0.59
4.1	0.27	5.5	0.39	4.2	0.32
2.9	0.13	3.8	0.22	2.9	0.15
1.8	0.05	2.6	0.15	1.8	0.07
1.1	0.03	1.7	0.09	1.2	0.04
1.0	0.01	1.4	0.04	1.1	0.03

Dark uptake:	426.4	counts/min.
In situ production rate:	2.87	mg C(mg Chl a)$^{-1}hr^{-1}$
In situ light intensity:	34.3	W m^{-2}
Surface radiation during *in situ* incubation:	627.8	W m^{-2}
% Dark uptake/Light uptake:	5.9	

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.09	0.11
β^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.11	-0.17	-0.05
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.26	4.10	4.43

BEDFORD BASIN

44°41'N 63°39'W

DATE : 05/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
132.7	4.34	140.7	3.43	129.4	3.22
68.0	4.06	59.6	2.83	39.6	3.06
25.5	2.61	28.4	2.16	15.6	1.74
13.3	1.28	15.1	1.33	10.4	0.94
6.8	0.70	9.0	0.67	5.3	0.51
3.7	0.30	5.3	0.40	2.5	0.31
2.5	0.13	3.6	0.21	2.0	0.14
1.7	0.04	2.7	0.14	1.3	0.06
1.0	0.00	1.6	0.06	0.7	0.02
0.7	0.00	1.3	0.03	0.5	0.01

Dark uptake: 400.5 counts/min.

In situ production rate: 1.08 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 17.1 W m^{-2}

Surface radiation during *in situ* incubation: 135.6 W m^{-2}

% Dark uptake/Light uptake: 7.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.10	0.10	0.11
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.09	-0.13	-0.05
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	3.80	3.55	4.03

BEDFORD BASIN

44°41'N 63°39'W

DATE : 06/07/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.9	3.98	135.3	3.65	117.0	2.93
57.7	4.09	53.4	2.81	-	-
22.7	2.40	26.5	1.79	18.9	1.80
12.3	1.46	14.7	1.19	10.6	1.14
7.0	0.61	9.4	0.86	6.8	0.65
3.8	0.27	5.5	0.49	4.0	0.39
2.6	0.12	3.4	0.25	2.0	0.18
1.7	0.06	2.5	0.11	1.2	0.10
1.1	0.01	1.5	0.05	0.7	0.05
1.0	0.00	1.3	0.03	0.6	0.01

57

Dark uptake: 209.4 counts/min.

In situ production rate: 0.96 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 18.8 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 314.4 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.10	0.09	0.10
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.06	-0.10	-0.02
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.70	3.42	3.98

BEDFORD BASIN

44°41'N 63°39'W

DATE : 07/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
126.7	5.88	135.9	5.21	124.6	5.17
64.6	5.56	60.3	4.61	42.6	3.93
22.1	3.74	27.4	2.92	20.8	2.41
12.2	1.89	14.7	1.80	-	-
7.1	1.05	9.3	1.06	7.0	0.92
4.0	0.56	5.3	0.63	4.3	0.51
2.8	0.25	3.6	0.38	3.1	0.27
1.7	0.11	2.4	0.22	2.0	0.14
1.0	0.04	-	-	1.3	0.06
0.7	0.00	1.2	0.04	0.8	0.04

58

Dark uptake: 352.3 counts/min.

In situ production rate: 2.91 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 20.4 W m^{-2}

Surface radiation during *in situ* incubation: 102.2 W m^{-2}

% Dark uptake/Light uptake: 4.2

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.14	0.13	0.15
β^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.10	-0.16	-0.06
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.56	5.27	5.84

BEDFORD BASIN

44°41'N 63°39'W

DATE : 08/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
125.1	8.58	135.9	7.73	172.6	8.59
67.2	7.41	62.8	5.85	67.1	6.70
26.7	4.38	28.9	3.65	26.0	4.14
14.7	2.31	16.1	2.05	13.1	2.48
7.3	1.12	9.9	1.38	7.4	1.32
4.3	0.58	5.9	0.80	4.9	0.85
2.7	0.33	3.6	0.50	3.2	0.39
1.6	0.16	2.5	0.31	2.0	0.21
1.1	0.09	1.4	0.16	1.2	0.14
0.8	0.10	1.2	0.09	0.5	0.10

Dark uptake: 287.5 counts/min.

In situ production rate: 2.97 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 19.8 W m^{-2}

Surface radiation during *in situ* incubation: 683.3 W m^{-2}

% Dark uptake/Light uptake: 4.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.16	0.15	0.17
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.07	-0.12	-0.02
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	8.28	7.94	8.64

BEDFORD BASIN

44°41'N 63°39'W

DATE : 09/07/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
128.9	6.78	144.5	8.36	172.6	8.52
68.0	8.35	70.6	6.85	67.1	7.53
27.9	3.61	30.3	3.88	26.8	4.14
12.5	1.96	14.0	1.82	12.5	2.17
6.6	0.95	7.8	1.13	7.6	1.08
3.6	0.49	4.3	0.36	4.3	0.63
2.5	0.26	2.8	0.61	2.7	0.25
1.5	0.14	1.9	0.20	1.7	0.12
1.0	0.10	1.2	0.10	1.0	0.12
0.7	0.07	1.0	0.05	0.6	0.05

69

Dark uptake: 311.3 counts/min.

In situ production rate: 2.31 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 16.0 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 223.3 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.4

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.15	0.14	0.17
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.07	-0.13	-0.01
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	8.37	7.92	8.81

BEDFORD BASIN

44°41'N 63°39'W

DATE : 10/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
129.4	6.44	144.0	6.76	173.1	7.45
70.6	6.60	68.9	5.65	72.2	7.07
27.3	4.37	30.5	3.90	22.9	3.88
13.3	2.32	14.2	2.28	12.3	2.00
7.2	1.20	8.9	1.39	7.1	0.90
3.4	0.62	5.1	0.82	3.7	0.48
2.6	0.37	3.6	0.48	2.5	0.20
1.7	0.16	2.6	0.29	1.6	0.13
1.1	0.08	1.6	0.15	0.9	0.10
0.9	0.06	1.2	0.09	0.7	0.05

Dark uptake: 314.0 counts/min.

In situ production rate: 1.28 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 12.7 W m^{-2}

Surface radiation during *in situ* incubation: 151.1 W m^{-2}

% Dark uptake/Light uptake: 7.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.17	0.17	0.18
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.11	-0.16	-0.07
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	7.00	6.75	7.26

BEDFORD BASIN

44°41'N 63°39'W

DATE : 11/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
141.3	7.87	155.3	7.38	188.7	7.87
82.7	7.15	72.3	6.17	78.3	7.73
27.5	5.15	33.1	4.09	25.3	4.84
14.1	2.66	15.1	2.76	13.5	2.68
8.2	1.39	8.9	1.54	7.9	1.43
4.3	0.74	4.8	1.11	4.4	0.88
3.0	0.40	3.7	0.59	3.0	0.43
2.0	0.21	2.7	0.36	2.0	0.27
1.2	0.10	1.8	0.14	1.1	0.10
1.1	0.05	1.6	0.18	1.1	0.08

Dark uptake:	415.0	counts/min.
In situ production rate:	2.31	mg C(mg Chl *a*)$^{-1}hr^{-1}$
In situ light intensity:	24.6	W m^{-2}
Surface radiation during *in situ* incubation:	347.8	W m^{-2}
% Dark uptake/Light uptake:	5.6	

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.24	0.22	0.27
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.23	-0.30	-0.16
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	7.55	7.20	7.90

BEDFORD BASIN

44°41'N 63°39'W

DATE : 12/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
134.3	8.08	153.7	8.70	184.4	8.51
60.3	7.37	62.0	6.50	-	-
25.5	4.62	-	-	26.5	4.81
13.1	2.43	16.6	3.00	14.2	2.58
6.6	1.21	7.8	1.59	6.5	1.37
4.0	0.74	4.6	0.91	3.8	0.71
3.2	0.38	3.4	0.62	2.8	0.33
2.1	0.20	2.4	0.31	1.7	0.15
1.4	0.13	1.7	0.20	1.1	0.07
1.2	0.09	1.3	0.12	0.9	0.06

Dark uptake: 536.0 counts/min.

In situ production rate: 4.81 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 24.6 W m^{-2}

Surface radiation during *in situ* incubation: 180.0 W m^{-2}

% Dark uptake/Light uptake: 4.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.23	0.22	0.24
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.21	-0.26	-0.16
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	8.31	8.03	8.59

BEDFORD BASIN

44°41'N 63°39'W

DATE : 13/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
134.8	7.01	164.5	6.51	137.5	7.07
64.6	6.89	72.3	5.82	79.2	7.37
24.6	4.29	33.1	4.26	26.0	4.79
11.3	2.36	15.1	2.51	14.7	2.67
6.6	1.26	9.1	1.45	7.6	1.45
4.3	0.70	5.3	0.86	4.0	0.82
3.3	0.37	3.8	0.59	3.1	0.34
2.2	0.23	2.7	0.30	2.0	0.15
1.5	0.11	1.8	0.18	1.3	0.09
1.3	0.07	1.6	0.14	0.7	0.06

Dark uptake: 392.0 counts/min.

In situ production rate: 5.30 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 34.6 W m^{-2}

Surface radiation during *in situ* incubation: 266.7 W m^{-2}

% Dark uptake/Light uptake: 2.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.20	0.18	0.22
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.18	-0.25	-0.11
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	7.06	6.80	7.33

BEDFORD BASIN

44°41'N 63°39'W

DATE : 14/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
140.2	7.45	172.0	7.74	199.5	7.53
67.1	6.77	68.9	5.94	81.8	7.39
29.3	4.87	36.0	4.39	28.4	4.83
13.3	2.58	16.6	2.48	16.3	3.00
8.0	1.36	9.4	1.51	8.3	1.33
4.7	0.69	5.7	0.79	4.7	0.63
3.5	0.47	4.1	0.45	3.3	0.26
2.4	0.21	2.8	0.27	1.9	0.14
1.6	0.09	2.0	0.14	1.2	0.07
1.4	0.09	1.7	0.11	0.5	0.05

Dark uptake: 495.0 counts/min.

In situ production rate: 5.24 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 38.0 W m^{-2}

Surface radiation during *in situ* incubation: 501.1 W m^{-2}

% Dark uptake/Light uptake: 4.8

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.18	0.16	0.19
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.18	-0.23	-0.14
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	7.65	7.36	7.93

BEDFORD BASIN

44°41'N 63°39'W

DATE : 15/07/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}
113.3	5.98	132.1	5.75	161.8	6.08
62.0	5.60	66.3	5.16	75.8	3.54
20.8	3.25	25.5	3.23	21.0	6.77
10.5	1.84	13.7	1.91	12.5	1.98
5.7	0.92	7.4	1.03	6.6	1.04
3.7	0.43	4.4	0.56	4.2	0.51
2.7	0.22	3.2	0.33	2.5	0.19
2.0	0.13	2.2	0.17	1.7	0.10
1.3	0.11	1.6	0.11	1.0	0.08
1.1	0.09	1.3	0.10	0.5	0.04

Dark uptake: 493.1 counts/min.

In situ production rate: 4.59 mg C(mg Chl *a*)$^{-1}$hr^{-1}

In situ light intensity: 39.0 W m^{-2}

Surface radiation during *in situ* incubation: 814.4 W m^{-2}

% Dark uptake/Light uptake: 4.5

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.16	0.15	0.17
R^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	-0.13	-0.19	-0.07
P_m^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	5.71	4.98	6.45

BEDFORD BASIN

44°41'N 63°39'W

DATE : 16/07/75

SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$hr^{-1}
118.6	6.85	135.3	6.70	161.8	7.90
49.9	5.72	61.1	5.03	68.9	7.51
21.8	3.13	25.7	3.10	26.5	4.63
9.9	1.63	12.1	1.79	15.6	2.28
6.1	0.84	6.6	1.02	8.3	1.20
3.7	0.35	4.0	0.55	4.9	0.66
2.8	0.19	2.8	0.30	3.1	0.29
1.8	0.07	2.0	0.17	1.9	0.09
1.3	0.05	1.5	0.09	1.1	0.07
0.6	0.02	1.2	0.07	0.6	0.01

Dark uptake: 414.3 counts/min.

In situ production rate: 4.67 mg C(mg Chl *a*)$^{-1}$hr^{-1}

In situ light intensity: 34.0 W m^{-2}

Surface radiation during *in situ* incubation: 638.9 W m^{-2}

% Dark uptake/Light uptake: 4.7

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.16	0.16	0.17
β^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	-0.15	-0.19	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}$hr^{-1})	7.35	6.94	7.76

BEDFORD BASIN

44°41'N 63°39'W

DATE : 17/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}hr^{-1}$
130.5	5.88	157.6	4.92	173.7	6.02
61.1	5.31	65.7	4.17	96.5	5.54
27.0	3.55	36.2	2.73	30.4	3.83
13.3	1.87	16.8	1.75	17.6	2.29
6.7	0.99	8.5	1.11	8.4	1.25
4.3	0.53	5.4	0.58	5.4	0.68
3.2	0.32	4.1	0.30	3.6	0.23
2.3	0.14	2.9	0.20	2.2	0.14
1.3	0.08	2.2	0.08	1.5	0.05
1.0	0.06	1.4	0.07	0.9	0.00

Dark uptake: 390.2 counts/min.

In situ production rate: 3.39 mg C(mg Chl *a*)$^{-1}hr^{-1}$

In situ light intensity: 32.1 W m^{-2}

Surface radiation during *in situ* incubation: 637.8 W m^{-2}

% Dark uptake/Light uptake: 4.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.16	0.15	0.17
R^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	-0.20	-0.25	-0.14
P_m^B (mg C(mg Chl *a*)$^{-1}hr^{-1}$)	5.55	5.21	5.88

BEDFORD BASIN

44°41'N 63°39'W

DATE : 18/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
133.5	4.79	142.9	4.84	167.2	5.12
63.7	4.77	54.9	4.08	72.3	5.25
27.4	3.13	30.3	2.71	31.2	3.56
14.2	1.83	14.7	1.62	16.6	1.90
8.5	1.02	8.4	0.93	8.8	1.07
4.2	0.48	5.0	0.59	4.3	0.57
3.1	0.27	3.5	0.31	3.3	0.22
2.1	0.11	2.5	0.41	2.0	0.09
1.3	0.03	1.8	0.08	1.1	0.02
0.8	0.02	1.4	0.04	0.7	0.02

Dark uptake: 392.8 counts/min.

In situ production rate: 1.87 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 18.9 W m^{-2}

Surface radiation during *in situ* incubation: 394.4 W m^{-2}

% Dark uptake/Light uptake: 5.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.13	0.12	0.14
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.11	-0.16	-0.07
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.11	4.94	5.28

BEDFORD BASIN

44°41'N 63°39'W

DATE : 19/07/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
183.3	4.71	146.7	3.88	200.2	4.43
86.1	4.77	74.0	3.75	77.5	4.61
32.6	3.49	30.7	2.77	33.1	3.42
14.2	2.07	12.8	1.51	16.1	1.97
8.7	1.00	7.8	0.85	9.9	1.11
4.6	0.50	4.3	0.55	5.1	0.59
3.5	0.30	3.2	0.29	3.4	0.26
2.4	0.15	2.4	0.18	2.3	0.14
1.5	0.06	1.6	0.15	1.4	0.06
1.3	0.02	1.2	0.02	0.6	0.04

70

Dark uptake: 402.2 counts/min.

In situ production rate: 2.35 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 40.1 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 653.3 $W\ m^{-2}$

% Dark uptake/Light uptake: 4.9

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.13	0.12	0.13
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.11	-0.14	-0.08
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	4.55	4.36	4.74

BEDFORD BASIN

44°41'N 63°39'W

DATE : 20/07/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
188.7	5.07	151.0	4.97	204.9	4.54
77.5	4.71	65.9	5.00	71.5	4.59
33.1	3.50	30.3	3.75	32.2	3.34
17.0	2.15	14.3	1.98	16.1	1.92
9.7	1.26	7.9	1.15	10.4	1.02
5.0	0.70	5.1	0.62	5.5	0.59
3.3	0.32	3.5	0.32	3.5	0.29
2.0	0.14	2.4	0.20	1.8	0.12
1.2	0.08	1.6	0.09	1.5	0.05
1.0	0.03	1.2	0.08	0.8	0.02

Dark uptake: 365.8 counts/min.

In situ production rate: 1.37 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 20.4 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 397.8 $W\ m^{-2}$

% Dark uptake/Light uptake: 6.8

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.14	0.12	0.15
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.12	-0.16	-0.08
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	5.04	4.90	5.18

BEDFORD BASIN

44°41'N 63°39'W

DATE : 21/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
183.3	2.94	145.6	2.94	202.2	2.86
70.6	3.38	69.7	3.17	69.3	3.32
23.7	2.47	24.6	2.26	25.1	2.43
13.1	1.23	12.3	1.27	14.4	1.39
8.0	0.63	7.2	0.74	8.6	0.82
4.7	0.42	4.5	0.39	5.1	0.42
3.4	0.17	3.2	0.19	3.1	0.13
2.3	0.06	2.3	0.08	2.2	0.04
1.5	0.02	1.6	0.04	1.3	0.01
1.3	0.02	1.2	0.04	1.0	0.01

Dark uptake: 370.4 counts/min.

In situ production rate: 1.12 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 23.0 W m^{-2}

Surface radiation during *in situ* incubation: 458.9 W m^{-2}

% Dark uptake/Light uptake: 6.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.11	0.09	0.12
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.14	-0.18	-0.10
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.31	3.17	3.45

BEDFORD BASIN

44°41'N 63°39'W

DATE : 22/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
159.6	4.75	126.7	4.69	172.6	5.17
51.7	4.57	49.9	4.70	67.1	4.89
21.8	2.69	20.8	2.59	23.7	3.03
12.1	1.42	10.4	1.44	13.3	1.51
7.1	0.70	6.2	0.79	7.3	0.77
3.7	0.41	3.8	0.41	4.1	0.36
2.8	0.21	2.8	0.23	2.8	0.15
1.8	0.10	1.9	0.13	1.8	0.05
1.2	0.04	1.4	0.05	1.2	0.02
1.0	0.01	1.1	0.04	0.6	0.00

Dark uptake: 339.9 counts/min.

In situ production rate: 1.79 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 28.6 W m^{-2}

Surface radiation during *in situ* incubation: 544.4 W m^{-2}

% Dark uptake/Light uptake: 3.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}$hr^{-1}(W m^{-2})$^{-1}$)	0.13	0.12	0.14
P^B (mg C(mg Chl a)$^{-1}$hr^{-1})	0.12	0.16	0.08
P_m^B (mg C(mg Chl a)$^{-1}$hr^{-1})	5.20	5.01	5.39

BEDFORD BASIN

44°41'N 63°39'W

DATE : 23/07/75

SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
164.5	3.69	126.7	3.63	173.0	3.55
76.6	3.68	65.4	3.31	72.1	3.17
23.6	2.11	25.5	2.29	28.7	2.17
10.9	1.09	11.5	1.21	15.5	1.20
6.2	0.65	6.1	0.65	9.1	0.68
3.8	0.34	3.5	0.39	4.7	0.33
2.4	0.17	2.1	0.16	2.7	0.14
1.3	0.07	1.6	0.09	2.0	0.06
0.7	0.03	0.7	0.06	1.1	0.03
0.2	0.03	0.3	0.03	0.8	0.02

Dark uptake: 410.5 counts/min.

In situ production rate: 1.70 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity. 30.1 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 615.6 $W\ m^{-2}$

% Dark uptake/Light uptake: 5.9

FITTED PARAMETERS

		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.09	0.08	0.10
p^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.03	-0.07	0.02
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	3.65	3.54	3.75

BEDFORD BASIN

44°41'N 63°39'W

DATE : 24/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl *a*)$^{-1}$$hr^{-1}$
175.3	4.43	142.9	4.58	183.3	4.23
77.5	4.35	71.0	4.34	70.6	4.28
28.9	2.67	27.4	2.71	28.4	2.60
13.1	1.53	13.3	1.36	15.1	1.57
7.2	0.73	7.1	0.84	8.1	0.82
4.3	0.40	4.1	0.47	4.5	0.42
3.3	0.21	3.2	0.21	3.2	0.14
2.1	0.09	2.1	0.13	1.9	0.06
1.5	0.03	1.5	0.05	1.2	0.03
1.2	0.02	1.1	0.02	0.6	0.00

Dark uptake: 350.0 counts/min.

In situ production rate: 1.77 mg C(mg Chl *a*)$^{-1}$$hr^{-1}$

In situ light intensity: 28.3 W m^{-2}

Surface radiation during *in situ* incubation: 505.6 W m^{-2}

% Dark uptake/Light uptake: 4.5

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$(W m^{-2})$^{-1}$)	0.13	0.11	0.14
p^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$)	-0.15	-0.19	-0.11
P_m^B (mg C(mg Chl *a*)$^{-1}$$hr^{-1}$)	4.57	4.49	4.66

BEDFORD BASIN

44°41'N 63°39'W

DATE : 25/07/75 SAMPLE DEPTH: 5 m

Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity W m^{-2}	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
178.0	1.88	151.0	2.06	188.7	1.74
81.4	2.15	80.1	2.07	77.1	2.03
30.3	1.47	30.3	1.59	33.1	1.44
13.3	0.88	14.2	0.91	17.5	1.09
7.5	0.49	7.7	0.55	9.3	0.56
4.6	0.24	4.7	0.35	5.5	0.32
3.1	0.15	3.1	0.19	3.3	0.11
2.2	0.07	2.2	0.10	2.0	0.04
1.4	0.03	1.4	0.04	1.3	0.01
1.3	0.01	1.1	0.03	0.5	0.00

Dark uptake: 307.4 counts/min.

In situ production rate: 0.56 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 17.3 W m^{-2}

Surface radiation during *in situ* incubation: 208.9 W m^{-2}

% Dark uptake/Light uptake: 7.8

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}$(W m^{-2})$^{-1}$)	0.08	0.07	0.08
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.08	-0.10	-0.05
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	2.04	1.97	2.11

BEDFORD BASIN

44°41'N 63°39'W

DATE : 26/07/75 SAMPLE DEPTH: 5 m

Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$	Light Intensity $W\ m^{-2}$	Specific Production mg C(mg Chl a)$^{-1}hr^{-1}$
172.6	2.66	133.1	2.91	183.3	2.65
81.8	3.03	80.9	3.18	76.6	2.69
33.1	2.14	30.3	2.27	28.4	1.63
16.1	1.26	12.3	1.19	16.1	1.17
8.9	0.65	7.8	0.68	8.9	0.59
4.5	0.33	4.0	0.35	4.0	0.31
3.2	0.23	3.0	0.16	2.9	0.13
2.1	0.10	2.1	0.14	1.8	0.07
1.3	0.04	1.3	0.05	0.7	0.05
1.1	0.03	1.0	0.00	0.4	0.05

77

Dark uptake: 327.2 counts/min.

In situ production rate: 0.71 mg C(mg Chl a)$^{-1}hr^{-1}$

In situ light intensity: 20.6 $W\ m^{-2}$

Surface radiation during *in situ* incubation: 156.7 $W\ m^{-2}$

% Dark uptake/Light uptake: 9.3

FITTED PARAMETERS		90% Confidence Interval lower	upper
α^B (mg C(mg Chl a)$^{-1}hr^{-1}(W\ m^{-2})^{-1}$)	0.08	0.07	0.09
R^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	-0.04	-0.07	-0.01
P_m^B (mg C(mg Chl a)$^{-1}hr^{-1}$)	2.93	2.81	3.06

BIOMASS INDICES

BEDFORD BASIN

44°41'N 63°39'W

Date	Chlorophyll $mg \cdot m^{-3}$	Carbon $mg \cdot m^{-3}$	Nitrogen $mg \cdot m^{-3}$	ATP $mg \cdot m^{-3}$	Total Volume PPM	Volume nanopl. PPM	Volume micropl. PPM	Pheop. $mg \cdot m^{-3}$
18/05/75	5.73	645	100	1.40	5.46	1.86	3.60	0.00
19/05/75	5.06	588	75	0.76	4.04	2.29	1.75	0.00
20/05/75	2.80	440	62	0.58	3.00	1.82	1.18	0.00
21/05/75	3.08	431	64	0.57	2.79	1.64	1.15	0.00
22/05/75	3.08	408	66	0.82	2.65	1.60	1.05	0.00
23/05/75	2.26	352	57	0.78	3.22	2.02	1.20	0.09
24/05/75	2.20	293	53	0.64	1.98	1.01	0.97	0.17
25/05/75	2.01	310	55	0.74	1.83	0.76	1.07	0.24
26/05/75	1.61	252	45	0.69	1.77	0.62	1.15	0.34
27/05/75	1.75	278	52	0.69	1.82	0.60	1.23	0.29
28/05/75	1.56	241	43	0.45	1.93	0.49	1.44	0.43
29/05/75	1.71	308	53	0.58	1.54	0.54	1.00	0.67
30/05/75	1.65	308	56	0.59	2.11	0.66	1.45	0.77
31/05/75	3.21	345	65	0.60	2.19	0.72	1.47	0.89
01/06/75	5.41	426	86	1.52	2.69	1.01	1.67	2.55
02/06/75	5.95	454	85	1.61	2.80	1.60	1.20	2.32
03/06/75	5.65	477	82	1.65	2.87	1.45	1.42	1.45
04/06/75	4.94	541	87	1.78	3.22	2.12	1.10	1.85
05/06/75	4.57	539	88	1.56	3.82	3.00	0.81	1.63
06/06/75	3.82	513	91	1.54	3.89	2.82	1.07	0.63
07/06/75	3.68	507	91	1.68	3.79	2.54	1.25	0.03

BEDFORD BASIN

44°41'N 63°39'W

Date	Chlorophyll $mg \cdot m^{-3}$	Carbon $mg \cdot m^{-3}$	Nitrogen $mg \cdot m^{-3}$	ATP $mg \cdot m^{-3}$	Total Volume PPM	Volume nanopl. PPM	Volume micropl. PPM	Pheop. $mg \cdot m^{-3}$
08/06/75	4.30	537	91	0.72	3.35	2.39	0.96	0.00
09/06/75	2.37	358	67	0.56	2.75	1.50	1.25	0.37
10/06/75	2.28	325	52	0.44	2.09	1.00	1.09	0.20
11/06/75	1.54	271	44	0.36	1.32	0.85	0.46	0.08
12/06/75	2.11	363	59	0.48	1.99	0.88	1.10	0.15
13/06/75	2.73	463	76	0.48	2.51	0.91	1.59	0.28
14/06/75	3.40	442	72	0.45	2.86	1.35	1.50	1.24
15/06/75	7.33	580	106	2.12	4.43	2.60	1.82	4.80
16/06/75	5.42	635	108	1.57	4.08	2.45	1.63	3.29
17/06/75	5.03	753	120	1.86	4.85	3.26	1.59	4.89
18/06/75	4.03	611	98	1.80	5.36	3.57	1.79	2.67
19/06/75	3.53	689	110	1.68	4.23	2.77	1.46	3.45
20/06/75	2.77	623	98	1.73	3.78	2.06	1.72	3.25
21/06/75	1.76	401	69	1.06	2.85	2.06	0.79	1.27
22/06/75	1.77	359	62	1.01	2.38	1.17	1.20	0.75
23/06/75	1.83	397	67	0.99	2.32	1.08	1.24	0.67
24/06/75	1.79	367	66	0.90	2.45	1.03	1.42	0.49
25/06/75	1.91	358	65	0.94	2.24	0.84	1.40	0.28
26/06/75	1.63	449	59	0.95	1.90	0.65	1.26	0.11
27/06/75	1.33	320	55	0.89	1.83	0.63	1.20	0.12
28/06/75	2.36	443	74	0.86	2.47	0.52	1.95	0.41

BEDFORD BASIN

44°41'N 63°39'W

Date	Chlorophyll $mg \cdot m^{-3}$	Carbon $mg \cdot m^{-3}$	Nitrogen $mg \cdot m^{-3}$	ATP $mg \cdot m^{-3}$	Total Volume PPM	Volume nanopl. PPM	Volume micropl. PPM	Pheop. $mg \cdot m^{-3}$
29/06/75	2.89	521	94	1.16	2.43	0.64	1.79	0.66
30/06/75	2.41	349	56	0.73	2.35	0.86	1.49	1.49
01/07/75	2.23	376	59	1.09	2.28	0.72	1.56	1.06
02/07/75	2.49	342	55	0.98	2.51	1.11	1.40	0.91
03/07/75	3.47	571	105	1.42	3.52	1.09	2.42	1.42
04/07/75	3.97	556	100	1.07	4.35	1.17	3.13	0.82
05/07/75	4.25	485	85	1.19	3.67	1.17	2.50	0.28
06/07/75	5.72	587	98	1.25	3.45	1.06	2.39	0.99
07/07/75	2.87	375	59	0.66	2.75	1.15	1.60	1.44
08/07/75	2.42	339	54	0.61	1.78	1.15	0.63	2.12
09/07/75	2.34	263	48	0.51	1.51	1.06	0.46	2.79
10/07/75	3.21	360	61	0.67	1.92	1.22	0.70	3.13
11/07/75	3.31	353	60	1.02	1.82	1.06	0.76	3.21
12/07/75	3.31	373	62	0.89	2.18	1.20	0.98	3.37
13/07/75	2.58	358	54	0.78	1.34	0.90	0.45	2.24
14/07/75	2.40	361	53	0.80	1.33	0.92	0.41	2.51
15/07/75	2.42	356	52	0.70	1.31	0.75	0.55	1.45
16/07/75	1.82	332	52	0.69	1.57	1.04	0.53	1.44
17/07/75	2.44	384	54	0.94	1.50	1.02	0.49	1.44
18/07/75	3.26	461	62	0.92	1.47	0.86	0.62	1.47
19/07/75	3.95	639	80	1.19	1.63	0.66	0.97	2.07

BEDFORD BASIN

44°41'N 63°39'W

Date	Chlorophyll $mg \cdot m^{-3}$	Carbon $mg \cdot m^{-3}$	Nitrogen $mg \cdot m^{-3}$	ATP $mg \cdot m^{-3}$	Total Volume PPM	Volume nanopl. PPM	Volume micropl. PPM	Pheop. $mg \cdot m^{-3}$
20/07/75	3.57	494	69	0.75	1.22	0.47	0.75	1.63
21/07/75	4.36	558	75	0.94	1.91	0.57	1.34	0.88
22/07/75	4.13	475	69	1.13	1.34	0.73	0.61	1.25
23/07/75	3.82	633	97	1.07	1.41	0.56	0.84	0.78
24/07/75	2.41	431	60	0.96	0.90	0.34	0.56	0.59
25/07/75	3.79	745	102	1.38	2.46	0.21	2.24	0.04
26/07/75	3.53	568	89	0.85	1.85	0.42	1.44	0.28

BIOLOGICAL CHARACTERISTICS

BEDFORD BASIN

44°41'N 63°39'W

Date	Total number of cells $\times 10^6 l^{-1}$	Mean Volume of cells μm^3	Mean Volume nanopl. μm^3	Mean Volume micropl. μm^3	Diversity nanopl.	Diversity micropl.
18/05/75	11.5	678	164	25052	-1.97	-2.11
19/05/75	11.8	357	196	21325	-1.95	-2.15
20/05/75	9.9	302	184	21649	-1.98	-2.14
21/05/75	10.3	270	159	21629	-2.05	-2.08
22/05/75	11.3	234	142	23434	-2.05	-2.09
23/05/75	9.7	333	210	23629	-1.94	-2.07
24/05/75	8.7	229	117	33331	-2.18	-2.13
25/05/75	6.0	306	128	26450	-2.20	-2.06
26/05/75	4.5	397	140	29169	-2.26	-2.10
27/05/75	5.1	354	117	30623	-2.27	-2.11
28/05/75	4.7	416	106	42086	-2.28	-2.12
29/05/75	5.2	295	104	26263	-2.28	-2.11
30/05/75	5.9	359	113	30264	-2.22	-2.11
31/05/75	7.7	285	95	27412	-2.24	-2.11
01/06/75	13.0	207	78	39981	-2.19	-1.88
02/06/75	13.8	203	116	14835	-2.28	-2.09
03/06/75	17.9	160	81	37068	-2.19	-1.99
04/06/75	24.8	130	85	28692	-2.15	-2.14
05/06/75	32.5	117	93	18140	-2.11	-2.14
06/06/75	29.4	132	96	21824	-2.07	-2.04
07/06/75	17.2	221	148	17112	-2.07	-2.15

BEDFORD BASIN

44°41'N 63°39'W

Date	Total number of cells $\times 10^6 l^{-1}$	Mean Volume of cells μm^3	Mean Volume nanopl. μm^3	Mean Volume micropl. μm^3	Diversity nanopl.	Diversity micropl.
08/06/75	15.9	210	151	16195	-2.07	-2.09
09/06/75	9.5	290	160	15781	-2.13	-2.11
10/06/75	4.6	452	220	13640	-2.02	-2.08
11/06/75	5.6	237	155	8627	-2.20	-1.71
12/06/75	5.0	398	180	11952	-2.11	-2.02
13/06/75	6.8	367	136	13880	-1.89	-2.10
14/06/75	10.0	286	137	15265	-2.01	-2.06
15/06/75	21.9	202	119	13377	-2.06	-2.04
16/06/75	26.2	156	94	14142	-2.11	-2.07
17/06/75	37.0	131	97	17546	-2.01	-2.08
18/06/75	37.7	142	96	15186	-2.07	-2.04
19/06/75	27.7	153	100	13849	-2.08	-2.10
20/06/75	17.7	214	117	18719	-2.08	-2.12
21/06/75	6.4	444	324	15261	-1.82	-2.03
22/06/75	7.2	330	165	16015	-2.13	-2.14
23/06/75	6.2	375	177	16861	-2.15	-2.11
24/06/75	5.6	439	189	11615	-2.15	-1.85
25/06/75	5.0	450	171	22566	-2.16	-2.10
26/06/75	4.1	462	159	22080	-2.25	-2.11
27/06/75	4.8	377	132	21065	-2.26	-2.02
28/06/75	3.7	673	143	11613	-2.26	-2.05

BEDFORD BASIN

44°41'N 63°39'W

Date	Total number of cells $10^6 l^{-1}$	Mean Volume off cells μm^3	Mean Volume nanopl. μm^3	Mean Volume micropl. μm^3	Diversity nanopl.	Diversity micropl.
29/06/75	5.0	485	129	28863	-2.25	-2.07
30/06/75	6.8	347	128	22996	-2.26	-2.10
01/07/75	6.9	330	105	22053	-2.23	-2.10
02/07/75	9.6	262	117	15936	-2.21	-1.93
03/07/75	8.9	395	125	17742	-2.24	-2.09
04/07/75	10.2	428	117	21456	-2.24	-1.87
05/07/75	10.0	365	117	21793	-2.17	-1.82
06/07/75	9.4	366	114	18787	-2.17	-1.71
07/07/75	11.2	246	104	17892	-2.10	-1.79
08/07/75	12.8	140	90	22751	-2.14	-2.11
09/07/75	12.4	122	85	17948	-2.12	-2.06
10/07/75	14.3	134	85	23842	-2.12	-1.78
11/07/75	12.9	141	82	31144	-2.11	-1.99
12/07/75	13.4	163	90	26611	-2.16	-2.05
13/07/75	11.1	121	81	32185	-2.13	-2.03
14/07/75	10.8	124	86	31697	-2.21	-1.78
15/07/75	9.3	133	74	34211	-2.15	-2.15
16/07/75	11.9	131	87	36298	-2.21	-2.10
17/07/75	11.4	132	89	26890	-2.21	-1.94
18/07/75	9.5	155	91	30587	-2.22	-1.85
19/07/75	6.4	254	103	35106	-2.25	-1.76

BEDFORD BASIN

44°41'N 63°39'W

Date	Total number of cells $\times 10^6 l^{-1}$	Mean Volume of cells μm^3	Mean Volume nanopl. μm^3	Mean Volume micropl. μm^3	Diversity nanopl.	Diversity micropl.
20/07/75	5.0	247	95	31855	-2.25	-1.99
21/07/75	6.2	310	93	35403	-2.21	-1.70
22/07/75	7.0	192	106	26342	-2.24	-1.82
23/07/75	4.5	315	127	33559	-2.27	-1.43
24/07/75	2.4	375	142	21260	-2.23	-1.59
25/07/75	1.8	751	127	30783	-2.26	-1.39
26/07/75	3.6	521	119	28552	-2.01	-1.39

SPECIES COMPOSITION

BEDFORD BASIN

44°41'N 63°39'W

SPECIES COMPOSITION 10^2 CELLS/L

Date	Ceratium	Dinophysis	Oxytoxum	Peridinium	Unidentified Dinoflagellate	Dinobryon balticum	Monosiga	Chaetoceros	Skeletonema costatum
17/05/75	0	0	0	11	105	1678	0	0	77
20/05/75	1	1	4	5	467	1547	0	0	199
26/05/75	0	1	0	9	143	468	0	0	3
28/05/75	1	3	6	1	221	276	0	0	26
31/05/75	4	3	14	6	187	101	0	0	59
02/06/75	0	2	16	0	352	36	0	0	56
06/06/75	3	7	60	5	432	4	0	0	342
12/06/75	0	15	3	47	99	0	103	0	28
21/06/75	0	10	31	81	75	0	0	0	0
26/06/75	13	37	6	154	0	0	0	0	0
30/06/75	4	68	6	3	5	18	82	0	0
05/07/75	9	8	8	9	10	17	998	0	0
07/07/75	19	33	30	4	2	12	14	1358	0
10/07/75	39	6	3	0	0	0	0	0	0
13/07/75	26	0	0	0	6	0	2	0	0
17/07/75	46	5	0	1	5	0	0	0	0
20/07/75	78	6	0	0	28	0	0	0	0
23/07/75	189	62	0	1	62	1	0	0	0
26/07/75	463	148	0	14	0	0	0	0	0

BEDFORD BASIN

44°41'N 63°39'W

SPECIES COMPOSITION 10^2 CELLS/L

Date	Euglinids	Pyramimonas	Green flagellates	Small unidentified tintinnid	Helicostomella subulata	Protozoans
17/05/75	95	0	0	544	0	1
20/05/75	155	2	0	671	0	3
26/05/75	72	0	0	780	0	0
28/05/75	138	143	0	75	0	12
31/05/75	87	100	7	1367	0	10
02/06/75	138	69	0	1540	0	10
06/06/75	152	30	8	838	0	32
12/06/75	81	46	2	89	0	6
21/06/75	221	204	0	76	4	11
26/06/75	12	8	34	4	1	14
30/06/75	82	17	154	862	2	9
05/07/75	16	20	252	0	4	1
07/07/75	726	350	1944	464	0	0
10/07/75	117	1402	319	53	6	0
13/07/75	296	386	1160	262	0	0
17/07/75	429	287	322	187	10	0
20/07/75	1132	148	1820	48	6	0
23/07/75	694	155	309	144	13	0
26/07/75	0	0	0	0	0	0

PHYSICAL CHARACTERISTICS

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp. °C	Sal. ‰	Density σt	Total Solar radiation $W \cdot m^{-2}$	Extinction coefficient m^{-1}	Daylength hours	Wind speed $m \cdot s^{-1}$	Wind direction
18/05/75	5.2	29.77	23.5	866.1	0.293	14.90	4.3	SW
19/05/75	6.9	29.39	23.0	946.6	0.254	14.90	4.2	SW
20/05/75	8.3	28.59	22.2	819.1	0.293	15.00	3.1	SE*
21/05/75	8.9	28.99	22.5	391.9	0.354	15.00	2.9	ENE
22/05/75	8.9	28.75	22.3	728.7	0.272	15.00	2.1	S
23/05/75	8.5	29.11	22.6	501.6	0.344	15.05	2.9	SSE
24/05/75	10.5	28.53	21.9	696.9	0.230	15.05	3.1	N
25/05/75	7.2	29.54	23.1	471.6	0.255	15.05	6.1	NNW
26/05/75	7.6	29.43	23.0	1090.1	0.238	15.20	2.2	SW
27/05/75	7.3	29.59	23.2	581.1	0.179	15.20	3.5	E*
28/05/75	7.7	29.46	23.0	213.1	0.216	15.20	4.8	E
29/05/75	7.6	29.65	23.2	395.6	0.311	15.28	2.6	NNW
30/05/75	7.2	29.70	23.3	604.2	0.303	15.28	3.9	S
31/05/75	8.2	29.55	23.0	805.3	0.137	15.28	3.0	ESE
01/06/75	8.9	29.49	22.9	193.0	0.224	15.37	1.9	E
02/06/75	9.4	29.21	22.6	235.4	0.311	15.37	2.4	NW
03/06/75	9.7	29.40	22.7	456.8	0.422	15.37	3.7	S
04/06/75	10.7	29.30	22.4	689.2	0.319	15.43	2.7	ESE
05/06/75	11.3	29.10	22.2	230.2	0.461	15.43	5.5	NNE

* Variable

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp. °C	Sal. ‰	Density σt	Total Solar radiation $W \cdot m^{-2}$	Extinction coefficient m^{-1}	Daylength hours	Wind speed $m \cdot s^{-1}$	Wind direction
06/06/75	11.0	29.12	22.2	495.2	0.375	15.43	2.1	ESE
07/06/75	10.5	29.21	22.4	507.9	0.246	15.48	6.8	E
08/06/75	11.0	29.08	22.2	331.8	0.283	15.48	3.3	NNE
09/06/75	9.8	28.79	22.2	117.3	0.320	15.48	5.5	N
10/06/75	9.1	29.13	22.5	251.0	0.355	15.53	5.2	NW
11/06/75	10.3	28.53	21.9	833.6	0.290	15.53	3.5	NNW
12/06/75	10.2	28.84	22.1	1139.0	0.224	15.53	3.0	SSE
13/06/75	10.9	28.81	22.0	709.3	0.316	15.57	4.1	E,SE
14/06/75	10.9	28.89	22.1	524.7	0.148	15.57	5.0	E
15/06/75	11.6	27.79	21.1	211.6	0.302	15.57	3.8	E
16/06/75	11.6	28.52	21.7	522.3	0.332	15.62	2.0	SSE
17/06/75	12.8	28.41	21.4	739.6	0.318	15.62	1.6	SW
18/06/75	12.9	28.71	21.6	778.8	0.251	15.62	2.7	WSW
19/06/75	12.2	29.10	22.0	819.5	0.270	15.62	3.4	SW
20/06/75	12.1	28.93	21.9	826.7	0.294	15.62	4.1	N,NNE
21/06/75	12.4	28.98	21.9	604.9	0.286	15.62	4.5	NNW
22/06/75	10.7	29.27	22.4	742.3	0.306	15.62	2.5	SSE
23/06/75	10.6	29.56	22.6	1117.9	0.231	15.62	2.6	WSW
24/06/75	11.5	29.60	22.5	1191.6	0.201	15.62	3.2	WSW
25/06/75	12.5	29.38	22.2	967.2	0.244	15.62	3.4	N
26/06/75	11.9	29.51	22.4	1361.0	0.202	15.62	2.5	S

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp. °C	Sal. ‰	Density σt	Total Solar radiation $W \cdot m^{-2}$	Extinction coefficient m^{-1}	Daylength hours	Wind speed $m \cdot s^{-1}$	Wind direction
27/06/75	12.1	29.64	22.4	1258.5	0.224	15.62	3.0	SSW,SW
28/06/75	12.2	29.69	22.5	1422.5	0.203	15.60	3.4	SSW
29/06/75	11.7	29.77	22.6	1028.8	0.256	15.60	2.1	N
30/06/75	10.5	29.97	23.0	340.5	0.309	15.60	3.4	N
01/07/75	11.5	29.86	22.7	790.1	0.316	15.55	2.9	E
02/07/75	13.5	29.68	22.2	1093.1	0.257	15.55	2.6	E
03/07/75	12.8	29.79	22.4	1135.5	0.224	15.55	1.9	WSW
04/07/75	13.7	29.73	22.2	458.4	0.231	15.53	1.5	S,SSW
05/07/75	13.1	30.00	22.5	907.0	0.245	15.53	2.8	SSE
06/07/75	13.5	29.98	22.4	440.1	0.259	15.53	2.3	SSE
07/07/75	13.9	30.03	22.4	653.5	0.289	15.48	1.3	ESE
08/07/75	14.7	29.99	22.2	219.8	0.320	15.48	1.2	SSE
09/07/75	15.9	29.87	21.9	952.0	0.178	15.48	1.2	S
10/07/75	15.1	30.04	22.2	487.9	0.178	15.42	2.6	S
11/07/75	15.9	29.94	21.9	470.7	0.178	15.42	2.3	S
12/07/75	15.8	30.01	22.0	1108.0	0.111	15.42	1.9	SSW
13/07/75	16.3	30.08	21.9	1056.0	0.146	15.35	3.8	SW
14/07/75	15.9	30.09	22.0	1288.0	0.192	15.35	3.4	SW
15/07/75	16.9	30.07	21.8	1153.4	0.232	15.35	4.0	SW
16/07/75	16.3	30.09	21.9	1065.1	0.235	15.27	4.3	WSW
17/07/75	14.6	30.24	22.4	1013.0	0.236	15.27	3.5	SW

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp. °C	Sal. ‰	Density σt	Total Solar radiation $W \cdot m^{-2}$	Extinction coefficient m^{-1}	Daylength hours	Wind speed $m \cdot s^{-1}$	Wind direction
18/07/75	14.1	30.27	22.5	466.4	0.377	15.27	4.3	WSW
19/07/75	13.3	30.33	22.8	823.1	0.203	15.18	3.3	WSW
20/07/75	12.3	30.38	23.0	1052.6	0.198	15.18	3.9	SSW
21/07/75	9.8	30.32	23.4	692.3	0.210	15.18	4.4	S
22/07/75	13.5	30.33	22.7	565.2	0.248	15.10	4.2	SSE
23/07/75	11.9	30.43	23.1	1155.1	0.256	15.10	1.9	S,SW
24/07/75	13.1	30.44	22.9	1257.5	0.233	15.10	3.2	SW
25/07/75	10.5	30.57	23.4	1401.6	0.130	14.98	2.9	SW
26/07/75	10.3	30.52	23.4	648.1	0.077	14.98	4.6	SSW

CHEMICAL CHARACTERISTICS, TIDAL HEIGHT AND

RATE OF DISCHARGE OF SACKVILLE RIVER.

BEDFORD BASIN

44°41'N 63°39'W

Date	Nitrate $mg\text{-}at \cdot m^{-3}$	Nitrite $mg\text{-}at \cdot m^{-3}$	Ammonia $mg\text{-}at \cdot m^{-3}$	Phosphate $mg\text{-}at \cdot m^{-3}$	Silicate $mg\text{-}at \cdot m^{-3}$	Tide cm	River Discharge $m^3 \cdot s^{-1}$
18/05/75	0.120	0.040	0.150	0.267	0.275	65	2.3
19/05/75	0.067	0.024	0.313	0.158	0.231	62	2.1
20/05/75	0.113	0.025	0.184	0.158	0.549	59	1.8
21/05/75	0.229	0.044	0.133	0.165	0.426	73	2.1
22/05/75	0.093	0.036	0.309	0.164	0.098	105	1.8
23/05/75	0.060	0.031	0.317	0.152	0.143	132	1.7
24/05/75	0.229	0.037	0.810	0.182	0.369	169	1.7
25/05/75	0.077	0.024	0.266	0.208	0.197	179	1.5
26/05/75	0.237	0.057	0.517	0.246	0.500	200	1.4
27/05/75	0.236	0.038	0.655	0.304	0.403	207	1.4
28/05/75	0.329	0.044	1.217	0.295	0.497	200	1.4
29/05/75	0.312	0.063	1.348	0.286	0.615	173	1.4
30/05/75	0.354	0.063	1.635	0.432	0.524	145	1.2
31/05/75	0.303	0.073	0.710	0.302	0.504	106	1.1
01/06/75	0.075	0.060	0.382	0.300	0.475	100	1.1
02/06/75	0.216	0.019	1.146	0.226	0.619	103	1.5
03/06/75	0.065	0.049	0.616	0.303	0.471	87	1.2
04/06/75	0.000	0.029	1.156	0.130	0.352	85	1.1
05/06/75	0.000	0.041	0.674	0.133	0.365	103	1.0
06/06/75	0.022	0.047	0.749	0.100	0.315	108	0.9
07/06/75	0.204	0.044	0.535	0.150	0.176	83	4.6

BEDFORD BASIN

44°41'N 63°39'W

Date	Nitrate mg-at·m^{-3}	Nitrite mg-at·m^{-3}	Ammonia mg-at·m^{-3}	Phosphate mg-at·m^{-3}	Silicate mg-at·m^{-3}	Tide cm	River Discharge m^{3}·s^{-1}
08/06/75	0.164	0.044	0.710	0.160	0.216	167	4.6
09/06/75	0.306	0.060	1.924	0.260	0.555	177	6.1
10/06/75	0.394	0.058	2.965	0.335	0.762	184	6.2
11/06/75	0.954	0.064	2.837	0.312	1.847	197	5.6
12/06/75	0.577	0.071	3.172	0.372	1.519	202	4.6
13/06/75	0.566	0.065	2.007	0.310	1.745	176	3.7
14/06/75	0.147	0.088	0.710	0.358	1.568	161	2.9
15/06/75	0.334	0.091	0.061	0.273	2.232	119	2.4
16/06/75	0.071	0.074	0.407	0.255	1.902	92	2.0
17/06/75	0.010	0.040	0.000	0.175	1.499	68	1.8
18/06/75	0.011	0.017	0.000	0.127	0.954	56	1.5
19/06/75	0.005	0.016	0.000	0.142	0.881	80	1.3
20/06/75	0.044	0.028	0.296	0.238	1.417	111	1.1
21/06/75	0.161	0.050	0.878	0.273	1.290	135	0.9
22/06/75	0.622	0.074	2.733	0.438	2.170	153	0.8
23/06/75	0.336	0.069	1.545	0.422	1.802	170	0.7
24/06/75	0.408	0.082	2.091	0.452	1.978	195	0.5
25/06/75	0.401	0.078	1.331	0.378	1.953	195	0.4
26/06/75	0.357	0.079	1.902	0.430	2.146	181	0.3
27/06/75	0.322	0.076	1.520	0.417	2.183	154	0.3
28/06/75	0.290	0.093	0.924	0.382	2.416	162	0.2

BEDFORD BASIN

44°41'N 63°39'W

Date	Nitrate mg-at·m^{-3}	Nitrite mg-at·m^{-3}	Ammonia mg-at·m^{-3}	Phosphate mg-at·m^{-3}	Silicate mg-at·m^{-3}	Tide cm	River Discharge m^{3}·s^{-1}
29/06/75	0.233	0.097	0.621	0.398	2.269	124	0.2
30/06/75	0.327	0.119	1.163	0.425	2.150	100	0.2
01/07/75	0.049	0.066	0.311	0.278	2.539	100	0.1
02/07/75	0.000	0.054	0.137	0.237	2.338	88	0.1
03/07/75	0.045	0.064	0.120	0.267	2.306	93	0.1
04/07/75	0.092	0.057	0.303	0.247	1.794	97	0.1
05/07/75	0.066	0.034	0.057	0.237	1.077	104	0.1
06/07/75	0.078	0.012	0.017	0.208	0.676	112	0.1
07/07/75	0.085	0.019	0.132	0.190	0.590	142	0.1
08/07/75	0.074	0.016	0.079	0.188	0.685	167	0.1
09/07/75	0.053	0.023	0.104	0.177	0.721	193	0.1
10/07/75	0.044	0.007	0.000	0.235	0.958	209	0.1
11/07/75	0.048	0.007	0.000	0.213	0.889	208	0.1
12/07/75	0.053	0.008	0.000	0.225	0.819	186	0.1
13/07/75	0.046	0.011	0.000	0.242	0.790	141	0.1
14/07/75	0.040	0.006	0.029	0.227	0.807	104	0.1
15/07/75	0.035	0.002	0.026	0.215	0.594	70	0.1
16/07/75	0.035	0.003	0.000	0.227	0.721	52	0.1
17/07/75	0.103	0.008	0.006	0.313	0.991	55	0.1
18/07/75	0.022	0.024	0.133	0.263	1.089	74	0.1
19/07/75	0.027	0.011	0.107	0.328	1.134	98	0.0

BEDFORD BASIN

44°41'N 63°39'W

Date	Nitrate $mg\text{-}at \cdot m^{-3}$	Nitrite $mg\text{-}at \cdot m^{-3}$	Ammonia $mg\text{-}at \cdot m^{-3}$	Phosphate $mg\text{-}at \cdot m^{-3}$	Silicate $mg\text{-}at \cdot m^{-3}$	Tide cm	River Discharge $m^3 \cdot s^{-1}$
20/07/75	0.036	0.013	0.075	0.307	1.175	123	0.0
21/07/75	0.048	0.017	0.064	0.242	1.335	148	0.1
22/07/75	0.018	0.019	0.054	0.208	1.183	170	0.1
23/07/75	0.015	0.022	0.760	0.265	1.683	185	0.1
24/07/75	0.039	0.030	1.640	0.282	1.563	194	0.0
25/07/75	0.038	0.016	1.580	0.305	2.117	193	0.1
26/07/75	0.113	0.037	2.220	0.472	2.527	181	0.3

BATHYTHERMOGRAPH RESULTS

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
18/05/75	6.1	0.0	5.6	3.8	4.7	7.5	3.7	8.7	3.0	9.6	1.9	19.8	0.8	27.6	0.5	31.7
	5.9	2.5	5.1	5.5	4.4	8.0	3.5	8.8	2.7	10.7	1.6	23.7				
19/05/75	7.4	0.0	6.7	3.9	5.5	5.5	4.0	7.8	3.1	9.5	2.1	18.1	1.2	25.7	0.8	26.3
	7.3	2.8	6.1	5.3	5.3	5.6	3.8	8.4	2.8	10.9	1.5	25.0	1.0	25.8	0.6	30.0
	7.0	3.6	5.9	5.4	4.3	7.2	3.4	9.0								
20/05/75	9.8	0.0	8.8	1.6	7.8	2.1	6.2	6.7	4.8	8.4	4.2	8.8	3.4	9.5	1.8	19.2
	9.7	0.9	8.7	1.7	7.2	3.2	5.6	7.7	4.5	8.6	4.0	9.0	2.9	10.4	1.4	23.4
	9.5	1.4	8.2	1.9	6.9	4.0	5.4	7.8	4.4	8.7	3.8	9.1	2.5	11.9	1.2	31.8
	9.0	1.5	8.1	2.0												
21/05/75	10.6	0.0	10.3	2.6	9.1	4.7	7.7	6.6	6.5	7.2	5.1	8.4	4.0	9.8	2.5	14.7
	10.7	1.0	9.8	3.3	8.9	4.8	7.6	6.7	6.2	7.3	5.0	8.5	3.6	10.5	1.9	20.9
	10.8	1.3	9.5	4.2	8.6	5.1	7.2	6.9	5.9	7.5	4.8	8.6	2.9	12.6	1.7	22.2
	10.7	2.1	9.2	4.6	7.9	6.3	6.7	7.1	5.4	8.0						
22/05/75	11.1	0.0	10.3	2.8	8.0	3.6	7.0	4.4	5.2	6.9	4.4	7.7	2.7	14.1	1.4	25.6
	10.8	2.1	9.6	3.0	7.9	3.7	6.3	5.7	5.0	7.0	4.0	8.7	2.2	20.5	0.9	29.2
	10.7	2.4	9.0	3.2	7.5	3.9	5.9	6.2	4.7	7.4	2.9	12.4	1.7	24.2	0.8	29.6
	10.5	2.7	8.7	3.4												
23/05/75	10.8	0.0	9.8	3.3	8.6	5.0	7.4	6.6	6.0	6.2	5.1	9.7	3.1	13.6	1.5	28.5
	10.7	1.5	9.6	3.9	8.2	5.4	7.2	6.8	5.7	8.9	4.7	10.3	2.8	14.9	1.1	30.5
	10.6	1.9	8.9	4.6	7.6	6.3	6.8	7.4	5.3	9.5	3.9	11.1	2.2	21.8	0.9	31.7
24/05/75	10.5	0.0	9.5	6.9	7.7	7.7	6.9	8.3	5.5	9.1	4.3	10.5	2.7	13.2	1.8	20.5
	10.2	6.2	9.0	7.0	7.4	8.0	6.5	8.6	5.4	9.2	3.8	11.7	2.6	13.8	1.3	24.3
	9.9	6.7	8.2	7.4	7.2	8.1	5.9	8.9	5.2	9.3	3.3	12.8	2.4	17.8	0.9	30.8
	9.8	6.8	8.1	7.5	7.1	8.2	5.8	9.0	4.6	9.9	3.1	12.9				
25/05/75	8.9	0.0	8.3	1.6	7.8	5.1	6.3	6.6	4.3	9.4	2.9	14.3	2.1	22.7	1.2	25.8
	8.8	1.2	8.1	1.8	7.5	5.6	6.0	6.8	3.5	12.1	2.7	17.4	1.6	24.4	0.4	31.3
	8.5	1.5	8.0	2.0	7.1	5.8	5.3	7.5	3.1	13.2	2.4	18.6				

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
26/05/75	9.5	0.0	8.7	2.2	8.1	5.9	6.8	6.9	6.0	7.6	4.7	9.9	3.1	17.8	2.5	23.6
	9.4	1.4	8.6	2.6	7.5	6.3	6.5	7.2	5.5	8.4	4.3	11.6	2.8	20.4	1.8	25.7
	9.1	1.8	8.4	5.3	7.0	6.8	6.3	7.3	5.1	9.2	3.5	14.1	2.7	22.6	0.9	31.5
27/05/75	8.1	0.0	7.5	3.9	6.4	6.4	5.8	7.1	4.9	8.1	3.7	13.0	1.8	23.6	0.9	29.8
	7.9	1.5	6.9	5.7	5.9	6.9	5.5	7.3	4.3	9.3	3.3	16.0	1.3	26.6	0.6	31.7
28/05/75	7.8	0.0	7.1	7.9	6.1	8.6	4.9	9.4	3.8	12.0	2.6	20.4	1.7	25.6	1.1	28.4
	7.6	6.6	6.6	8.4	5.3	9.0	4.2	10.6	2.8	16.8	2.0	24.5	1.5	25.9	1.0	30.3
	7.4	7.4	6.4	8.5												
29/05/75	8.3	0.0	7.4	6.7	6.2	7.8	4.2	14.2	2.3	20.8	1.6	26.0	0.9	27.6	0.3	28.6
	8.0	5.1	7.2	6.9	5.8	8.6	3.4	17.2	1.9	22.4	1.2	27.3	0.6	27.8	0.3	31.2
	7.7	6.1	6.9	7.1	4.8	11.6	3.0	18.7								
30/05/75	8.5	0.0	7.9	1.9	7.4	5.1	5.5	9.5	4.3	12.4	3.6	16.7	2.6	21.7	1.4	27.3
	8.3	1.0	7.7	4.2	6.9	6.2	4.9	10.6	3.9	14.6	3.2	18.5	2.0	23.5	1.1	29.9
	8.1	1.2														
31/05/75	8.9	0.0	7.8	6.9	6.2	10.8	5.2	11.8	4.6	12.5	4.0	13.3	3.0	19.4	1.8	24.8
	8.5	4.8	7.3	9.3	5.9	11.0	4.8	12.2	4.2	13.1	3.7	14.0	2.7	20.3	1.2	30.7
	8.1	6.0	7.0	10.0	5.5	11.4										
01/06/75	9.1	0.0	8.5	7.6	7.3	8.7	6.3	9.7	4.9	10.4	4.2	11.7	2.5	19.4	1.3	24.6
	9.0	2.5	8.2	8.1	6.7	9.5	6.0	9.9	4.6	10.8	3.3	15.2	1.7	22.0	0.7	31.0
	8.7	4.4	7.9	8.4	6.6	9.6	5.2	10.3								
02/06/75	10.0	0.0	9.3	3.9	8.9	4.8	7.0	9.4	5.3	12.4	4.1	14.6	3.0	17.2	1.8	23.8
	9.8	1.4	9.2	4.2	8.1	6.2	6.2	11.1	4.8	13.7	3.9	14.7	2.7	19.4	1.5	24.9
	9.5	2.7	9.1	4.3	7.6	7.1	5.8	11.6	4.4	14.2	3.5	15.4	2.3	21.0	1.1	30.0
03/06/75	10.1	0.0	9.2	5.4	8.4	6.0	7.6	6.6	6.0	9.9	5.1	12.0	3.4	16.9	1.3	25.6
	9.9	3.4	8.9	5.7	8.2	6.1	7.1	7.1	5.7	11.2	4.3	13.5	2.7	19.4	1.0	29.6
	9.5	4.9	8.5	5.9	7.9	6.4	6.4	8.6	5.4	11.7	3.9	14.8	1.9	22.5		
04/06/75	10.8	0.0	10.4	4.8	9.7	5.7	9.3	6.0	8.2	7.0	6.9	9.2	6.1	10.1	5.7	10.8
	10.7	3.7	10.1	5.3	9.5	5.8	9.1	6.1	7.3	8.6	6.3	9.8	5.9	10.3	5.3	13.9

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
05/06/75	11.9	0.0	9.9	7.4	8.9	8.0	8.1	8.4	7.1	9.0	6.1	9.5	4.7	12.6	2.3	22.3
	11.8	2.5	9.7	7.6	8.7	8.1	8.0	8.5	6.5	9.2	5.9	9.8	3.4	18.7	1.9	23.8
	11.1	5.1	9.4	7.8	8.6	8.2	7.2	8.9	6.3	9.4	5.4	10.7	3.0	20.7	1.4	25.3
	10.5	6.6	9.0	7.9	8.3	8.3										
06/06/75	12.3	0.0	11.2	4.5	10.4	5.0	8.6	6.5	6.8	11.0	5.6	13.0	3.8	16.9	2.5	21.9
	12.2	2.1	11.0	4.6	10.0	5.2	8.4	6.8	6.5	12.1	4.9	13.8	3.2	20.1	2.0	23.6
	11.9	3.6	10.9	4.7	9.6	5.5	7.7	7.7	6.0	12.7	4.5	14.7	3.0	21.1	1.6	27.0
	11.5	4.2	10.5	4.9												
07/06/75	11.0	0.0	9.8	6.9	8.3	13.2	7.6	13.9	6.1	14.6	4.3	17.0	3.5	17.7	1.4	23.2
	10.9	5.1	9.4	8.7	8.1	13.4	7.1	14.1	5.9	14.8	4.0	17.3	2.3	19.7	1.0	26.1
	10.5	5.8	9.2	10.9	7.9	13.7	6.4	14.5	5.4	15.2	3.8	17.4	2.1	20.8	0.7	31.2
	10.1	6.2	8.9	11.8												
08/06/75	11.1	0.0	10.0	8.5	8.5	12.0	6.6	15.1	5.6	18.2	4.6	19.0	3.3	20.0	2.0	23.1
	10.9	5.4	9.3	9.8	8.1	12.7	6.3	15.9	5.1	18.7	4.2	19.2	3.1	20.1	1.7	26.1
	10.6	6.8	8.8	11.1	7.3	13.8	5.9	17.5	4.9	18.8	3.8	19.5	2.4	21.5	1.4	28.0
09/06/75	10.0	0.0	8.4	9.5	7.0	11.2	5.9	18.0	4.7	19.7	3.2	22.9	2.0	27.5	0.8	33.2
	9.7	7.3	8.0	10.2	6.8	11.3	5.6	18.7	4.5	20.6	2.7	23.8	1.8	27.8	0.5	37.6
	9.4	8.1	7.5	10.8	6.6	11.6	5.1	19.2	3.5	22.2	2.2	25.8	1.1	31.9	0.4	37.8
	8.9	9.0	7.3	10.9	6.1	15.3	4.9	19.3								
10/06/75	9.4	0.0	8.8	3.9	7.2	11.2	5.7	20.4	4.4	21.2	3.3	22.6	2.4	23.1	0.8	27.7
	9.3	2.1	8.1	9.0	6.9	12.5	5.2	20.7	4.1	21.5	3.0	22.8	1.7	23.8	0.6	29.8
	9.1	3.0	7.7	10.1	6.0	19.5	4.9	20.8	3.9	21.6	2.7	23.0	1.4	24.6		
11/06/75	10.6	0.0	9.2	4.0	7.5	12.3	5.7	19.3	4.8	20.3	4.1	20.6	2.9	22.0	1.8	25.1
	10.4	2.2	8.4	6.2	6.9	14.7	5.2	20.0	4.7	20.4	3.6	20.8	2.3	23.5	1.4	28.0
	9.9	2.9	8.0	8.5	6.5	17.0	5.0	20.2	4.5	20.5	3.4	20.9	2.1	24.3	1.2	29.9
	9.5	3.5														
12/06/75	11.5	0.0	10.2	2.4	9.1	4.1	7.1	13.9	5.5	18.6	3.9	20.4	2.7	23.5	1.7	25.7
	11.4	1.2	9.9	2.7	8.6	8.9	6.8	15.8	5.0	19.2	3.5	21.6	2.3	24.4	1.2	29.5
	11.2	1.3	9.6	3.1	8.2	10.5	6.3	17.0	4.6	19.7	3.1	22.9	1.9	25.3	1.1	30.5
	10.5	2.0	9.4	3.3	7.4	13.1	6.1	17.3								

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
13/06/75	11.6	0.0	10.3	6.9	9.4	7.7	8.1	8.5	6.5	15.4	5.5	18.3	4.5	20.5	2.6	24.3
	11.5	3.2	9.8	7.4	8.6	8.1	7.4	10.5	6.2	16.8	5.1	19.3	4.3	20.7	1.9	26.5
	10.8	5.3	9.5	7.6	8.4	8.3	6.8	13.1	5.9	17.6	4.8	19.7	3.4	22.3	1.2	30.6
14/06/75	11.5	0.0	10.7	6.0	9.2	7.1	7.4	12.6	5.9	17.9	4.0	20.9	2.5	23.0	1.1	29.7
	11.4	4.1	10.5	6.2	8.9	7.5	6.9	13.4	5.4	18.7	3.6	21.3	2.3	23.2	1.0	30.0
	11.1	5.1	9.7	6.6	8.6	8.0	6.2	17.3	4.5	20.0	3.4	21.6	1.8	24.8	0.9	30.1
15/06/75	12.1	0.0	11.3	4.8	9.6	5.8	7.3	9.7	5.7	18.5	4.5	19.8	2.9	21.0	1.5	23.6
	11.9	1.2	10.8	5.0	8.9	7.3	7.1	10.4	5.4	19.0	4.1	20.4	2.5	21.3	0.8	29.5
	11.7	2.1	10.4	5.2	8.0	8.2	6.6	14.8	4.9	19.5	3.7	20.6	2.2	21.6	0.7	29.9
	11.5	4.2	10.1	5.3	7.4	9.6	6.1	17.3	4.7	19.6	3.6	20.7	1.8	22.3		
16/06/75	13.5	0.0	12.3	2.5	10.7	5.2	9.3	7.4	7.7	11.7	4.9	19.3	2.9	20.8	1.2	25.2
	13.4	1.0	11.8	3.2	10.5	5.3	9.0	8.1	7.4	12.5	4.3	20.2	2.4	21.2	0.8	29.0
	13.1	1.4	11.3	4.2	10.0	5.7	8.4	9.2	6.3	17.1	4.1	20.4	2.0	21.6	0.7	29.4
	12.4	2.1	11.1	4.8	9.7	6.2	8.0	10.6	5.3	18.8	3.9	20.5	1.8	22.2		
17/06/75	14.4	0.0	12.7	2.8	11.5	4.1	9.4	7.7	7.8	12.2	5.1	19.6	3.6	21.3	1.9	23.7
	14.2	1.4	12.5	3.1	11.4	4.2	9.1	8.4	7.1	15.1	4.9	19.8	3.1	21.6	1.3	25.9
	13.9	1.8	12.3	3.3	11.2	4.3	8.7	10.8	6.5	16.2	4.5	20.5	2.9	21.8	0.9	28.5
	13.5	2.1	12.1	3.6	10.6	4.9	8.5	11.1	6.1	18.0	4.0	21.0	2.6	22.0	0.7	31.8
	13.2	2.3	11.8	3.9	9.9	6.4	8.1	11.5	5.8	18.7	3.8	21.1	2.3	22.5		
18/06/75	14.4	0.0	13.0	1.8	11.6	3.8	10.5	5.6	7.7	10.4	5.7	19.7	3.4	22.7	2.0	24.5
	14.2	1.0	12.7	2.1	11.4	4.0	9.8	6.3	7.3	12.1	5.0	20.6	3.3	22.9	1.7	25.4
	13.9	1.4	12.3	3.2	11.1	5.1	9.0	7.6	6.1	17.2	4.6	21.0	3.0	23.1	1.5	27.4
	13.7	1.5	11.9	3.6	10.7	5.5	8.1	9.7	5.8	19.4	3.8	22.3	2.5	23.6	1.3	31.6
	13.3	1.6														
19/06/75	13.3	0.0	12.0	3.6	9.6	7.2	8.6	7.9	6.6	15.4	5.0	18.5	3.5	20.4	2.1	24.0
	13.2	2.3	11.4	4.4	9.4	7.3	8.4	8.2	6.4	16.0	4.9	19.1	3.1	21.1	1.6	28.8
	12.9	3.1	10.6	5.4	9.1	7.5	7.5	9.9	5.7	17.0	4.5	19.7	2.8	22.1	1.3	30.4
	12.5	3.3	10.3	5.7	8.9	7.6	7.1	11.6	5.4	17.3	4.0	19.9	2.4	22.7	1.1	31.9
	12.2	3.5	9.8	6.9												

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
20/06/75	14.6	0.0	13.1	4.1	11.1	4.9	10.4	5.4	8.1	8.6	5.7	15.5	3.5	21.5	1.9	27.5
	14.4	3.2	12.6	4.3	11.0	5.0	9.9	5.6	7.8	8.9	5.1	16.7	3.1	22.7	1.6	29.8
	14.2	3.6	12.1	4.4	10.8	5.1	9.4	5.9	7.4	9.8	4.8	17.1	2.5	25.6	1.2	31.8
	14.0	3.8	11.5	4.6	10.7	5.2	9.1	6.3	6.7	12.4	4.5	17.8	2.1	26.9	1.1	32.0
	13.5	4.0	11.3	4.8	10.5	5.3	8.7	7.0	6.1	13.9	4.1	19.3				
21/06/75	13.7	0.0	12.5	2.9	10.8	3.6	8.9	5.6	7.3	7.0	5.8	13.2	2.8	24.3	1.5	26.6
	13.4	2.3	11.9	3.1	10.5	3.9	8.5	5.8	7.1	7.3	5.4	14.8	2.4	24.7	1.2	28.1
	13.2	2.6	11.7	3.2	10.1	4.5	8.0	6.2	6.6	7.9	4.8	19.7	2.1	25.1	0.9	31.2
	13.0	2.7	11.1	3.4	9.6	5.1	7.8	6.4	6.3	8.6	3.8	22.9	1.9	25.3	0.8	31.6
	12.7	2.8	11.0	3.5	9.2	5.5	7.6	6.7	6.1	9.5	3.6	23.1				
22/06/75	13.3	0.0	11.8	2.8	9.8	3.6	7.9	4.5	6.2	8.0	4.1	21.1	3.0	26.6	2.2	27.6
	13.2	1.8	11.4	3.0	9.7	3.7	7.7	4.6	5.8	9.1	3.9	21.3	2.9	27.0	1.8	28.9
	12.5	2.5	11.1	3.2	9.1	4.0	7.3	5.3	5.5	9.6	3.6	21.4	2.7	27.2	1.5	30.0
	12.1	2.7	10.6	3.4	9.0	4.1	6.9	6.3	4.8	12.6	3.4	21.8	2.5	27.3	1.0	31.5
23/06/75	12.9	0.0	11.3	4.0	9.5	4.9	7.4	5.8	6.0	9.6	4.1	19.2	3.4	26.8	1.8	28.8
	12.6	2.6	10.8	4.4	9.0	5.0	6.1	6.3	5.6	11.4	3.8	25.4	2.8	27.1	1.5	29.8
	12.4	3.1	10.5	4.6	8.6	5.2	6.5	8.0	5.4	11.8	3.6	25.8	2.3	27.6	1.2	31.6
	11.7	3.8	10.4	4.7	8.0	5.4	6.2	9.3								
24/06/75	12.3	0.0	10.9	2.5	9.0	3.3	7.5	6.1	6.6	7.3	5.3	11.2	3.5	25.5	2.2	29.0
	12.2	1.7	10.3	2.8	8.4	3.6	7.1	6.7	6.2	7.8	4.4	20.0	2.9	27.4	1.7	31.2
	12.0	1.9	9.7	3.0	8.2	3.8	6.8	7.0	5.6	9.4	4.0	22.5	2.6	28.0	1.7	31.5
	11.0	2.4	9.6	3.1	7.9	4.8										
25/06/75	14.4	0.0	13.5	4.0	12.0	4.6	9.7	5.4	7.5	6.3	6.1	7.5	4.2	20.6	2.8	28.4
	14.3	2.5	13.1	4.1	11.3	4.8	9.1	5.7	7.3	6.4	5.8	8.4	3.9	22.1	2.2	29.8
	14.0	3.6	12.9	4.2	10.5	5.2	8.5	5.9	7.2	6.5	5.1	13.1	3.7	24.6	1.5	33.0
	13.8	3.8	12.6	4.3	10.2	5.3	8.1	6.1	7.0	6.6	4.7	15.0	3.2	26.3	1.4	33.2
	13.6	3.9														

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
26/06/75	14.6	0.0	13.1	2.5	10.0	3.2	8.6	4.2	6.6	7.3	5.5	9.5	3.9	20.3	2.1	25.8
	14.4	1.5	12.1	2.6	9.7	3.3	8.0	5.2	6.4	7.6	4.9	14.4	3.6	20.9	1.6	28.6
	14.2	1.8	11.9	2.7	9.3	3.6	7.4	6.8	6.1	7.9	4.8	17.9	3.3	21.4	1.5	29.4
	13.9	2.0	11.2	2.8	9.0	3.8	7.2	7.0	5.8	8.4	4.6	19.0	2.5	24.8	1.4	32.4
	13.5	2.4	10.4	3.0												
27/06/75	14.4	0.0	13.6	2.5	11.1	3.1	8.3	4.2	7.3	4.9	5.9	6.8	4.5	16.4	2.6	26.8
	14.3	2.1	13.1	2.6	10.9	3.2	8.1	4.4	7.1	5.1	5.6	8.6	4.2	20.8	2.4	27.9
	14.1	2.3	12.3	2.9	10.1	3.4	7.8	4.6	6.8	5.3	5.3	9.2	3.4	25.0	2.2	30.8
	13.9	2.4	11.9	3.0	9.5	3.6	7.7	4.7	6.2	5.9	5.0	11.0	3.0	25.6		
28/06/75	14.4	0.0	12.8	3.6	10.8	5.6	9.6	6.3	7.1	7.7	5.8	9.2	4.4	19.4	2.8	24.1
	14.2	1.4	12.3	3.7	10.7	5.7	9.3	6.4	7.0	7.8	5.3	12.4	4.1	20.0	2.6	25.4
	13.8	2.8	11.7	5.1	10.5	5.8	8.5	6.8	6.7	7.9	5.0	14.4	3.8	21.6	2.2	29.6
	13.6	3.1	11.4	5.4	10.1	5.9	7.9	7.4	6.2	8.4	4.7	18.5	3.3	22.5	2.0	30.4
	12.9	3.5	11.0	5.5	9.8	6.1										
29/06/75	14.6	0.0	13.3	2.0	12.3	2.7	11.2	3.8	8.9	6.0	7.4	6.8	6.1	7.9	3.1	24.6
	14.4	0.7	13.1	2.1	12.0	2.8	10.8	4.5	8.6	6.1	7.0	7.3	5.3	9.4	2.5	26.6
	14.2	0.9	12.8	2.4	11.8	3.0	9.9	5.4	8.2	6.3	6.6	7.6	5.0	10.6	2.2	28.0
	13.9	1.1	12.4	2.6	11.6	3.3	9.2	5.8	7.8	6.6	6.3	7.7	4.6	15.9	1.8	28.6
30/06/75	14.2	0.0	13.8	3.5	8.2	4.0	6.7	4.8	5.5	10.5	4.6	17.5	3.3	24.6	1.8	31.2
	14.0	3.1	11.8	3.6	7.5	4.2	6.4	5.5	5.2	13.2	3.7	22.3	2.7	26.8	1.7	31.5
	13.9	3.4	5.9	3.8	7.1	4.4	5.8	9.1	4.8	14.4						
01/07/75	13.3	0.0	11.8	3.7	9.0	5.2	7.3	6.8	6.6	7.3	5.0	9.0	4.1	16.2	2.3	25.6
	13.2	3.0	11.2	3.9	8.6	5.4	7.2	6.9	6.4	7.5	4.8	9.3	3.7	17.8	2.4	28.0
	13.0	3.4	10.0	4.5	8.1	5.6	6.9	7.1	5.9	7.7	4.5	10.8	3.4	18.3	2.6	29.2
	12.9	3.5	9.3	5.0	7.8	5.9	6.8	7.2	5.5	8.1	4.4	14.2	2.9	20.7	2.6	31.2
	12.6	3.6														
02/07/75	13.6	0.0	13.1	6.0	11.9	6.4	6.9	6.8	6.3	7.1	5.0	8.5	3.7	17.2	2.9	27.4
	13.5	3.9	12.9	6.2	10.8	6.5	6.7	6.9	5.7	7.3	4.7	10.1	3.4	21.7	2.4	32.0
	13.3	5.7	12.6	6.3	8.5	6.6	6.4	7.0	5.3	7.8	4.4	15.3	3.2	25.8		

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
03/07/75	14.1	0.0	12.5	4.4	10.6	5.3	9.5	6.2	7.6	6.8	6.1	8.9	4.1	22.5	3.0	28.4
	14.0	3.3	12.0	4.6	10.2	5.4	8.9	6.5	7.2	7.0	5.6	9.7	4.0	23.2	2.7	30.4
	13.8	3.6	11.3	5.0	10.0	5.5	8.6	6.6	6.8	7.3	4.7	12.6	3.8	23.7	2.5	31.1
	13.5	3.9	11.0	5.1	9.6	6.1	8.0	6.7	6.4	8.1	4.5	13.6	3.3	27.0		
04/07/75	14.7	0.0	13.5	2.8	11.5	3.9	10.2	4.6	9.4	7.4	7.6	8.9	6.8	9.7	4.4	17.6
	14.6	1.8	13.3	2.9	10.9	4.2	9.9	4.9	9.2	7.6	7.4	9.2	6.5	10.3	3.9	24.1
	14.3	2.1	13.2	3.0	10.6	4.3	9.7	5.5	8.2	8.1	7.2	9.3	4.9	14.8	3.1	30.7
	14.0	2.3	11.6	3.8	10.4	4.5	9.5	7.1	7.9	8.6						
05/07/75	13.5	0.0	11.7	5.9	9.8	7.4	8.7	9.1	7.4	9.7	6.6	11.0	5.6	12.2	3.9	20.7
	13.4	1.9	11.5	6.2	9.6	7.7	8.5	9.3	6.1	10.2	6.4	11.2	5.1	12.8	3.5	27.4
	13.1	2.3	10.9	6.5	9.3	8.0	8.3	9.4	7.0	10.5	6.2	11.3	4.5	14.0	3.4	30.1
	12.9	2.6	10.6	6.7	9.1	8.6	7.9	9.5	6.8	10.7	6.0	11.6	4.2	15.7	3.3	30.8
	12.4	4.3	10.2	6.9												
06/07/75	15.3	0.0	13.7	3.0	12.1	3.8	10.6	7.3	9.2	8.8	7.5	11.6	6.0	13.3	4.3	18.3
	15.2	1.2	13.2	3.2	11.8	4.3	10.2	8.0	8.9	9.3	7.2	12.0	5.6	13.5	3.9	20.2
	15.1	1.4	12.9	3.3	11.6	4.4	9.9	8.3	8.4	9.7	6.7	12.5	5.3	13.9	3.5	25.0
	14.7	1.6	12.4	3.6	11.3	5.2	9.5	8.5	8.0	10.6	6.4	12.9	4.9	15.1	2.7	30.0
	14.5	1.8														
07/07/75	15.5	0.0	14.5	4.1	13.0	5.6	10.6	9.2	8.8	11.2	7.2	11.8	5.8	13.7	3.7	24.2
	15.4	2.5	14.2	4.5	12.4	6.2	10.1	10.4	8.6	11.3	6.8	12.2	5.0	15.4	3.4	30.3
	15.2	3.3	13.8	4.8	11.8	7.4	9.7	10.8	8.1	11.4	6.5	13.0	4.5	17.9	3.1	31.3
	14.9	3.8	13.4	5.3	11.4	8.7	9.5	10.9	7.9	11.5	6.1	13.3	4.1	22.0	2.9	31.5
	14.7	4.0	13.2	5.5	11.0	9.0	9.1	11.0	7.6	11.6						
08/07/75	16.2	0.0	14.2	5.0	12.4	6.1	10.0	9.4	8.4	11.5	7.1	13.2	5.3	15.4	3.6	22.3
	16.0	2.5	14.0	5.1	11.5	7.5	9.7	10.2	8.2	12.0	6.9	13.3	4.7	17.6	3.1	27.1
	15.2	4.0	13.5	5.2	11.2	8.0	9.5	10.5	7.7	12.8	6.3	13.9	4.4	18.4	2.7	29.6
	14.9	4.2	13.2	5.4	10.6	8.7	9.2	10.6	7.3	13.0	5.7	14.9	3.9	20.9	2.6	29.8
	14.6	4.3	12.8	5.6	10.4	9.0	8.9	10.8								

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
09/07/75	17.0	0.0	15.4	4.3	13.2	6.0	11.6	9.0	10.2	9.9	8.7	12.7	7.3	13.6	4.5	18.9
	16.9	1.1	15.1	4.5	12.9	7.0	11.3	9.1	9.8	10.6	8.5	12.9	7.0	13.8	4.0	20.0
	16.7	1.6	14.8	4.6	12.2	8.5	11.1	9.3	9.5	11.4	8.1	13.1	6.5	14.2	2.9	27.2
	16.4	2.1	14.0	5.0	11.9	8.8	10.5	9.6	9.3	11.6	7.6	13.3	5.7	15.5	2.5	29.9
	15.6	4.1	13.4	5.6												
10/07/75	15.8	0.0	14.1	5.5	12.1	10.6	10.2	12.3	9.0	13.1	7.8	14.0	5.8	15.6	3.6	25.0
	15.6	2.9	13.7	7.0	11.6	10.8	9.7	12.6	8.6	13.3	7.6	14.1	5.5	16.1	3.2	30.6
	15.2	3.9	13.1	9.4	11.1	11.1	9.6	12.7	8.4	13.5	7.3	14.4	4.5	20.9	2.9	31.8
	14.5	4.8	12.9	9.7	10.6	11.8	9.4	12.8	8.2	13.6	6.5	14.9	3.9	23.0	2.8	31.9
	14.3	5.0	12.2	10.5	10.3	12.1										
11/07/75	17.1	0.0	15.5	4.3	13.4	6.6	11.0	9.5	10.0	10.3	8.2	12.4	7.4	13.0	5.6	17.0
	17.0	0.9	14.6	6.0	13.2	6.8	10.5	10.0	9.5	10.7	8.1	12.5	7.0	13.4	4.9	18.4
	16.7	1.4	14.2	6.3	12.3	8.2	10.3	10.1	9.1	11.1	7.9	12.6	6.6	14.6	4.4	21.7
	16.3	1.8	14.1	6.4	11.9	8.6	10.2	10.2	8.8	11.3	7.7	12.8	5.9	16.1	4.3	21.8
	15.9	3.1	13.6	6.5	11.6	8.8										
12/07/75	16.5	0.0	14.8	5.6	12.9	6.7	11.6	7.9	9.6	11.2	8.4	11.8	7.3	13.0	5.4	16.6
	16.4	2.4	14.6	6.1	12.7	6.9	10.9	9.2	9.0	11.4	8.1	12.2	6.8	14.4	5.1	17.9
	16.2	3.2	14.4	6.3	12.4	7.1	10.2	10.7	8.7	11.6	7.9	12.3	6.3	15.1	3.9	21.7
	15.6	4.3	13.7	6.4	12.0	7.6	9.8	11.0	8.6	11.7	7.5	12.7	5.6	16.1	2.1	31.1
	15.2	4.7	13.3	6.5	11.8	7.8										
13/07/75	17.8	0.0	15.0	4.3	13.5	6.1	11.9	8.1	9.1	13.2	7.3	15.6	5.9	17.6	4.7	19.4
	17.6	0.6	14.7	5.1	13.2	6.4	11.4	8.9	8.8	13.7	6.8	16.8	5.7	17.8	3.6	24.0
	17.4	0.8	14.2	5.6	13.0	6.5	10.6	10.8	8.4	14.2	6.6	17.0	5.4	18.0	3.1	26.4
	17.1	1.0	13.9	5.8	12.6	7.1	9.8	12.1	8.2	14.4	6.2	17.2	5.0	18.6	2.2	31.5
	16.2	1.9	13.7	6.0	12.2	7.8	9.4	12.8	7.9	14.6						
14/07/75	17.0	0.0	14.8	4.9	13.3	6.0	11.3	7.8	10.0	9.4	8.5	12.9	6.1	16.1	3.7	23.3
	16.5	2.4	14.7	5.0	13.1	6.3	11.1	8.1	9.7	9.6	8.1	13.7	5.6	17.4	3.4	24.1
	16.0	3.4	14.3	5.2	12.5	6.9	10.9	8.3	9.5	9.8	7.4	14.6	5.2	17.9	2.9	26.4
	15.6	4.0	14.0	5.4	11.9	7.3	10.7	8.6	9.3	10.1	7.2	14.8	4.8	18.6	2.5	29.7
	15.3	4.5	13.7	5.6	11.6	7.6	10.1	9.2	8.9	10.6	6.8	15.0	4.3	19.9	2.5	30.2
	15.0	4.8														

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
15/07/75	18.0	0.0	16.1	3.4	13.5	4.8	12.2	5.5	11.1	6.2	9.5	7.3	7.6	12.8	4.5	19.4
	17.8	0.7	15.6	4.2	13.1	4.9	12.0	5.6	10.8	6.4	9.3	7.6	7.1	13.9	4.3	19.8
	17.4	1.1	15.5	4.3	12.7	5.1	11.8	5.8	10.2	6.7	9.0	7.9	6.6	15.4	3.5	24.7
	16.8	2.5	14.7	4.5	12.6	5.2	11.6	5.9	9.9	7.0	8.7	9.5	5.9	16.9	3.1	26.3
	16.5	2.8	14.1	4.6	12.4	5.3	11.5	6.0	9.7	7.1	8.0	11.2	5.2	17.9	2.7	31.0
16/07/75	18.4	0.0	16.4	3.8	14.0	5.0	11.4	6.3	10.2	7.3	7.1	13.1	4.5	19.0	3.4	23.5
	18.3	2.1	16.1	4.1	13.6	5.1	11.2	6.6	9.7	7.4	6.2	14.0	4.3	19.6	2.9	26.4
	18.1	2.4	15.5	4.4	13.0	5.2	11.0	6.8	9.2	7.6	5.4	17.0	4.1	21.1	2.4	30.0
	17.6	2.7	15.1	4.5	12.7	5.3	10.8	6.9	8.7	8.3	5.1	17.4	3.9	21.8	2.3	30.4
	17.2	3.1	14.5	4.8	12.1	5.6	10.6	7.1	7.6	11.2	4.8	17.8	3.6	23.0	2.3	30.8
	16.8	3.3	14.2	4.9												
17/07/75	17.5	0.0	15.6	2.9	14.0	3.7	11.6	5.1	10.2	6.5	7.9	8.0	5.6	18.3	4.3	20.9
	17.4	1.8	14.9	3.1	13.6	4.0	11.5	5.2	9.4	6.7	7.5	8.9	5.4	18.8	4.1	23.4
	17.1	2.2	14.8	3.2	12.9	4.5	11.1	5.4	8.8	7.0	6.6	11.0	5.0	19.5	3.8	24.5
	16.9	2.4	14.6	3.3	12.3	4.8	10.8	5.7	8.6	7.2	6.3	15.1	4.7	20.4	3.4	27.2
	16.5	2.6	14.4	3.5	11.9	4.9	10.4	6.4	8.4	7.5	6.0	16.0	4.4	20.8	3.2	29.6
	16.1	2.7														
18/07/75	17.5	0.0	16.0	2.4	14.1	3.5	11.7	4.8	9.8	6.5	7.1	9.4	5.7	16.4	4.0	21.2
	17.4	1.4	15.7	2.6	13.5	3.7	11.2	5.2	9.4	6.7	7.0	9.5	5.4	18.1	3.7	24.0
	17.2	1.7	15.6	2.7	13.0	3.9	11.0	5.3	9.0	6.8	6.8	9.6	5.1	18.9	3.4	25.3
	16.9	1.9	14.9	3.0	12.9	4.0	10.3	6.0	8.6	7.0	6.6	10.0	4.7	19.7	3.1	27.1
	16.6	2.0	14.8	3.1	12.7	4.1	10.2	6.2	7.9	7.7	6.5	10.4	4.5	20.2	2.8	29.8
	16.1	2.3	14.5	3.2	12.4	4.4	10.0	6.3	7.5	8.4	6.2	14.6	4.1	20.9		
19/07/75	17.4	0.0	15.4	3.7	11.6	5.1	9.7	6.4	8.3	8.1	7.5	8.6	5.9	12.5	4.4	23.5
	17.3	3.0	14.5	3.9	11.1	5.3	9.4	6.6	8.2	8.2	7.1	9.0	5.4	17.8	3.5	26.0
	17.2	3.2	13.0	4.4	10.6	5.6	9.1	6.9	8.0	8.3	6.6	10.3	5.1	19.1	2.9	29.4
	17.0	3.3	12.5	4.7	10.2	6.0	8.9	7.2	7.7	8.5	6.2	11.1	4.8	19.9	2.8	31.1
	15.5	3.6	12.2	4.8	10.0	6.1	8.5	7.8								

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
20/07/75	16.8	0.0	15.5	1.0	14.0	2.3	11.7	4.6	9.3	6.5	7.8	7.6	6.3	9.2	4.2	22.6
	16.6	0.5	15.1	1.7	13.6	2.6	11.5	4.8	8.6	6.8	7.3	8.3	6.1	9.8	3.6	24.2
	16.5	0.6	14.9	1.8	12.9	3.8	10.9	5.7	8.5	6.9	7.1	8.4	5.6	15.1	3.3	25.4
	16.1	0.8	14.5	2.1	12.4	4.1	10.5	6.1	8.2	7.1	6.8	8.7	5.0	17.4	2.7	30.2
	15.7	0.9	14.3	2.2	12.2	4.3	10.3	6.2	8.0	7.3	6.6	8.8	4.7	20.0	2.7	30.9
21/07/75	18.1	0.0	14.4	1.8	12.5	2.8	10.9	3.5	8.8	6.1	7.4	7.5	6.0	8.6	3.7	21.8
	17.8	0.9	14.1	1.9	11.9	3.0	10.6	3.7	8.3	6.8	7.1	7.9	5.8	9.0	3.2	23.5
	17.6	1.2	13.7	2.1	11.7	3.1	10.2	4.4	8.2	6.9	6.7	8.1	4.7	15.7	2.5	28.2
	17.4	1.4	13.4	2.4	11.6	3.2	9.8	5.0	7.9	7.1	6.6	8.2	4.3	19.3	2.3	31.2
	15.1	1.6	12.9	2.7	11.3	3.3	9.6	5.3	7.6	7.4	6.4	8.3				
22/07/75	17.6	0.0	16.3	2.7	14.4	4.1	11.7	5.0	8.8	5.8	7.7	6.8	5.4	11.2	3.4	22.1
	17.5	1.0	16.2	2.8	14.1	4.2	10.7	5.2	8.6	5.9	7.5	6.9	4.6	18.6	3.3	22.8
	17.3	1.3	15.9	3.0	13.8	4.4	10.4	5.3	8.5	6.0	7.0	7.1	4.1	21.0	3.1	26.5
	17.1	1.9	15.6	3.4	13.1	4.6	9.9	5.4	8.3	6.1	6.3	7.6	3.9	21.4	2.8	29.2
	16.9	2.2	15.3	3.7	12.5	4.7	9.3	5.6	7.9	6.5	5.9	8.6	3.6	21.6	2.7	31.3
	16.5	2.6	15.0	3.8	12.1	4.8	9.1	5.7								
23/07/75	17.3	0.0	15.7	1.5	14.0	2.5	11.8	3.7	9.5	4.8	7.3	7.5	4.9	14.4	3.2	24.6
	17.2	0.7	15.5	1.7	13.6	3.1	11.3	3.8	8.8	5.5	6.9	7.9	4.5	20.2	2.9	29.2
	16.5	1.1	15.1	1.9	13.4	3.2	10.9	3.9	8.6	5.8	6.3	9.0	3.8	22.5	2.5	30.1
	16.2	1.2	14.9	2.1	12.4	3.5	10.3	4.3	8.1	6.5	5.8	10.3	3.6	22.6	2.2	31.3
	16.0	1.4	14.3	2.4	12.2	3.6	10.2	4.4	7.6	7.0	5.4	11.5	3.5	22.7		
24/07/75	16.3	0.0	15.1	2.5	13.7	3.7	11.3	4.5	6.8	6.0	5.7	7.4	4.2	14.8	2.6	27.1
	16.2	1.0	14.6	3.1	12.9	3.9	9.8	4.8	6.5	6.3	5.3	7.8	3.6	17.4	2.4	29.0
	16.1	1.2	14.5	3.2	12.8	4.0	9.4	4.9	6.3	6.6	4.7	9.1	3.3	18.7	2.2	29.4
	15.7	1.4	14.3	3.3	11.9	4.3	8.9	5.0	6.1	6.7	4.5	10.0	2.9	22.6	2.1	29.6
	15.4	1.9	14.1	3.5	11.7	4.4	8.6	5.1								
25/07/75	12.9	0.0	11.9	2.9	9.5	4.2	8.5	5.0	8.0	5.3	5.8	8.9	4.1	16.5	2.9	21.4
	12.7	1.5	10.7	3.5	9.2	4.4	8.3	5.1	7.4	5.9	4.8	12.3	3.6	19.3	2.7	24.4
	12.6	1.6	10.1	3.9	8.9	4.6	8.2	5.2	6.5	7.4	4.5	15.0	3.1	20.5	2.5	31.4
	12.1	2.7														

BEDFORD BASIN

44°41'N 63°39'W

Date	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth	Temp	Depth
26/07/75	13.6	0.0	12.5	2.8	11.0	4.1	8.6	4.7	6.6	8.8	5.5	11.5	4.4	17.1	3.2	28.3
	13.5	1.5	12.0	3.4	10.9	4.2	8.1	4.9	6.1	10.7	5.3	11.8	3.6	20.0	2.9	31.6
	13.3	2.1	11.5	3.9	10.4	4.3	7.8	5.4	5.8	11.2	4.9	13.3	3.4	22.1	3.8	31.9
	12.7	2.7	11.3	4.0	9.6	4.5	7.3	7.0								

HOURLY SOLAR RADIATION READINGS HALIFAX CITADEL.

HALIFAX CITADEL

44°39'N 63°35'W

TOTAL RADIATION FOR EACH HOUR ENDING AT (Local Time) (g cal cm^{-2} hr^{-1})

Date	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
17/05/75	1	10	25	42	57	69	77	82	82	77	68	56	42	26	10	1
18/05/75	+	8	24	40	54	66	63	63	67	71	59	50	39	25	10	1
19/05/75	1	7	24	43	56	67	75	79	79	75	66	54	38	22	8	1
20/05/75	+	7	22	37	47	59	69	74	67	50	46	25	13	11	6	+
21/05/75	+	2	4	6	7	17	25	41	55	75	67	55	41	25	9	+
22/05/75	1	10	25	42	55	67	73	73	70	77	69	37	31	18	3	+
23/05/75	+	1	4	6	6	12	22	41	56	64	53	39	34	22	5	+
24/05/75	+	6	26	25	15	23	25	19	23	29	29	13	10	7	3	1
25/05/75	1	11	27	43	58	70	77	82	79	76	69	57	42	25	10	1
26/05/75	1	11	20	24	40	53	65	40	35	22	18	12	5	3	1	+
27/05/75	+	2	4	6	7	12	17	17	18	17	10	5	3	3	1	+
28/05/75	+	1	3	5	8	21	23	29	21	46	44	17	19	6	7	1
29/05/75	1	11	27	38	46	65	59	46	44	33	41	36	32	28	8	1
30/05/75	1	11	26	42	52	66	75	70	80	76	66	50	40	23	8	1
31/05/75	+	3	4	6	7	11	11	15	9	8	7	10	3	4	3	+
01/06/75	+	2	6	10	13	15	13	19	22	23	22	15	6	5	M	M
02/06/75	M	M	M	M	M	M	M	M	M	M	62	47	41	26	11	1
03/06/75	2	14	29	45	59	70	78	81	81	72	47	30	30	16	8	1
04/06/75	2	11	25	42	56	59	36	54	29	39	56	31	17	6	3	1
05/06/75	2	9	24	38	37	52	60	70	77	64	66	58	44	27	13	2
06/06/75	2	7	14	25	38	64	69	59	37	29	19	14	10	5	2	+
07/06/75	+	1	3	8	12	20	28	35	22	39	46	22	21	8	2	+
08/06/75	+	1	4	6	9	12	11	8	9	9	9	7	8	6	3	1
09/06/75	1	3	6	9	11	16	19	22	19	19	17	10	8	7	5	1
10/06/75	2	15	26	42	52	71	77	83	83	75	61	22	24	25	12	1
11/06/75	2	13	28	45	58	70	77	82	81	69	48	50	42	13	12	2
12/06/75	2	13	25	39	44	49	76	80	82	73	60	49	32	16	8	2
13/06/75	2	12	27	28	35	63	78	82	77	51	40	29	21	5	2	+
14/06/75	+	2	7	7	8	8	17	19	14	29	29	14	13	5	2	+
15/06/75	+	2	4	9	17	33	46	60	64	77	68	58	43	26	11	1

HALIFAX CITADEL

44°39'N 63°35'W

TOTAL RADIATION FOR EACH HOUR ENDING AT (Local Time) (g cal cm^{-2} hr^{-1})

Date	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
16/06/75	1	3	8	19	38	66	76	78	79	76	65	48	41	27	14	2
17/06/75	1	10	24	33	54	60	64	49	64	63	55	53	34	13	3	1
18/06/75	1	4	10	19	30	39	56	78	78	72	62	52	35	24	6	1
19/06/75	1	5	15	28	54	66	74	79	79	74	64	49	34	24	13	2
20/06/75	1	5	26	43	55	58	68	66	39	21	14	21	20	22	10	1
21/06/75	1	12	28	45	58	70	80	52	59	65	53	49	43	29	12	2
22/06/75	1	12	27	43	57	69	78	82	82	75	60	45	28	24	6	2
23/06/75	2	14	20	36	55	60	60	77	74	61	55	55	40	17	10	1
24/06/75	2	6	22	35	47	58	68	73	73	65	61	49	35	24	8	2
25/06/75	1	6	19	34	51	62	75	77	71	74	70	57	44	29	13	1
26/06/75	1	12	28	43	57	68	77	82	82	77	69	57	43	28	12	1
27/06/75	1	12	27	43	58	67	79	83	83	79	69	59	45	30	14	1
28/06/75	1	13	28	44	59	71	80	85	85	81	72	61	46	30	14	2
29/06/75	1	7	20	23	31	38	24	15	33	20	14	13	10	8	3	1
30/06/75	1	13	29	45	38	71	79	83	83	77	61	57	43	28	13	1
01/07/75	2	9	26	45	56	68	70	82	76	78	63	62	50	M	M	M
02/07/75	1	14	30	46	60	72	78	80	80	78	69	57	43	28	11	2
03/07/75	1	7	15	24	22	40	53	31	20	16	10	8	9	3	1	+
04/07/75	1	6	27	31	23	53	73	78	77	73	67	54	44	26	9	1
05/07/75	+	3	7	16	11	12	23	29	54	48	46	37	12	5	3	1
06/07/75	1	3	6	11	16	23	42	79	79	75	64	54	42	26	12	2
07/07/75	1	3	7	10	14	19	33	22	10	14	17	24	17	8	4	1
08/07/75	+	3	7	11	20	27	46	47	68	52	46	43	40	26	10	1
09/07/75	+	3	7	10	17	12	18	22	24	34	21	23	14	9	6	1
10/07/75	+	1	6	18	19	13	15	28	35	31	22	23	6	2	1	1
11/07/75	+	3	7	12	19	23	26	40	58	58	41	46	23	6	5	1
12/07/75	+	3	8	10	12	30	40	38	49	65	43	39	26	8	4	1
13/07/75	1	6	9	22	39	66	74	77	78	73	66	54	41	26	10	1
14/07/75	+	5	15	17	37	68	75	79	78	75	67	55	41	27	12	1

HALIFAX CITADEL

44°39'N 63°35'W

TOTAL RADIATION FOR EACH HOUR ENDING AT (Local Time) (g cal cm^{-2} hr^{-1})

Date	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
15/07/75	1	7	25	37	55	64	72	77	77	73	65	54	41	26	10	+
16/07/75	1	9	26	26	40	52	78	71	79	74	63	50	34	24	7	1
17/07/75	1	5	12	29	49	66	54	75	71	45	59	48	33	24	9	1
18/07/75	+	6	20	37	39	39	37	30	47	61	47	25	30	17	5	1
19/07/75	1	4	15	28	49	61	70	75	74	68	59	48	35	22	9	1
20/07/75	+	3	7	11	14	22	20	37	38	41	51	54	38	17	4	+
21/07/75	1	4	7	12	18	19	36	42	39	39	35	18	10	3	2	+
22/07/75	+	3	7	14	30	51	67	75	77	69	61	38	24	23	8	1
23/07/75	1	8	22	33	52	64	72	79	78	73	64	53	40	24	10	1
24/07/75	1	8	20	36	41	54	54	70	74	68	62	44	35	20	6	1
25/07/75	+	1	3	7	12	11	18	23	28	32	14	22	10	2	1	+
26/07/75	+	1	4	7	7	8	10	33	40	61	60	52	39	23	5	+